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ORIGINAL ESSAYS.

Observations on the Medical Use of Spirit of Turpentine, by Dr. Samuel Osborn.

THE present age, perhaps more than any other, has been characterized by the successful diligence and zeal which it has displayed in researches. The efforts made in the various arts and sciences, have been often rewarded by important discoveries; and none of the branches of knowledge can boast of more useful improvements, than those which have been connected with medical inquiries. While the truth of this position must be generally acknowledged, it will also be allowed that the ardour of pursuit after novelties, especially in the healing art, has been almost every where so exclusively directed to recent or modern innovations in practical as well as theoretical principles, that much very important, though ancient medical skill communicated by the writings of an early age, has been disregarded, or ignorantly confounded with pretended new discoveries; the new medical author or practitioner, claiming the merit and honour of first introducing as a beneficial novelty, some plan or method of treatment well known to his predecessors, and recorded in works yet extant, and of easy attainment. Though much has been written, and sometimes Vor. 6.

in a spirit of severe invective or wanton ridicule, with the intention of bringing into contempt very many of the . old and well proved medicines of former schools of practice, yet all efforts have fortunately, proved vain, to banish from the materia medica such as have heretofore been distinguished for their efficacy, and whose useful qualities have been tested and established by long experience. apothecary's shop still abounds with numerous and valuable compounds, and this abundance of various preparations is not to be regretted; inasmuch as, although the chief active ingredient may be the same in many, the judicious practitioner is thereby enabled to make a selection, and to appropriate a particular composition adapted, not only to the disease which is the present subject of his treatment, but also to the peculiar habits, prejudices, and idiosyncrasies of his patient. It will be confessed by those who have been long acquainted with the medical world, that most practical physicians, so far from having diminished the number of the remedies which they were wont to use in early practice, have, on the contrary, multiplied them according as they have advanced in age, and added to their stock of observation and experience. It follows, that the old experienced physician, though he be not possessed of more, or even as much medical science, (especially of that sort derived from the more modern and contemporary publications,) as may be possessed by the younger practitioner, should be listened to with more care, and greater deference in consultation, than are usually exhibited by his youthful and inexperienced associate. In such a case, the long experience of the aged practitioner may qualify him to suggest indications of cure, and the choice of remedies unknown to the younger companion of his consultation. It is certain that many important articles of the materia medica, apparently of opposite tendency to one another, are judiciously used in morbid affections. To account

satisfactorily for this fact, theory alone will not suffice; but experience will, in such instances, guide the physician's conduct, without regard to any theory; and the beneficial result of the use of seemingly opposite medicines, will often do away the extravagant respect so uniformly shown to theoretical reasoning in the practice of young physicians.

The wise man said, "There is nothing new under the sun;" and this saying applied to the practice of medicine in the present age, can admit of no refutation, and, indeed, of little opposition. Most of the remedies, or curative articles lately brought into notice, more especially those which are published to the world as new discoveries, may be proved to have been used in remote periods; and many, too have been well known among the teachers of medicine, in the very infancy of the art. Among the numerous novelties which modern times have so profusely produced, and which are continually set forth as grand improvements, as wholly unknown to physicians of any former age, many and boasted discoveries claimed by our contemporaries may be traced for their origin to ancient sources, sometimes forgotten, but more frequently concealed by those who vaunt them as their own finding.

The worm-seed oil, and cotton wool, were prescribed nearly two centuries ago, as recorded in the works of Riverius, Fernelius, and their contemporaries. Trew, in 1737, published a treatise on nervous diseases, in which he recommends the Oil of Cajeput. The medical properties of white hellebore were well known two thousand years ago. All these medicines, within a few years, have been proclaimed as new remedies. When Currie's Treatise on the use of cold water in fevers first appeared, it was very generally considered as having introduced a new method of practice in the treatment of fevers; whereas, instead of being a novelty in practice, this, the universal agent of nature in all her productions of matter and its innumerable modifications, has been employed, in every age,

as an important help and powerful restorative in febrile complaints, attended with an increased heat in the system. Water made colder by the admixture of ice, was in the year 1736, in common use in Italy, in the treatment of fevers, and was taken by the patient to the extent of 15, 20 and even 25lbs. a day. At the same time when these quantities were given internally, snow, as well as cold water, was applied to several parts of the body, and this practice was pursued in cases of eruptive, as well as other fevers.

My present object being to awaken the attention of my medical brethren to an article which I deem of greater efficacy, and possessed of more valuable properties than are now generally ascribed to it, I wish to be understood in the outset as not claiming any other merit than that of endeavouring to call the notice of the profession to the indisputable usefulness of a remedy important in many diseases; which has, of late years, been little known, or carelessly neglected; a remedy which recommends itself at once by its cheapness, and its extensive applicability to a great variety of ailments. This remedy is the SPIRIT OF TURPENTINE. It was an article of the materia medica, and in great repute, more than two centuries ago; and its utility in many cases was so well authenticated, as to excite surprise, that its application in practice should, at this day, be so very limited. It has heretofore been highly estimated, and unhesitatingly used and recommended, by persons of great celebrity, not only as medical writers, but as skilful and experienced practical physicians. In RIVERIUS'S HISTORY OF CASES, &c., an English Edition, of which appeared as early as 1645, we find that it was administered in doses of two drachms for an obstinate suppression of urine which yielded kindly to this, though it had before resisted a variety of other medicines. It is there also stated to have been a successful application for the toothache; and to have given relief to pricked, or injured nerves and tendons.

Wiseman, an eminent surgeon in his day, recommended its use in various cases, and in different forms, both internally and externally, as early as 1676. Salmon, his contemporary, directs its use in doses of from five to ten drops. M. Quesnoy used the Ol. Terebinth. in 1736, to prevent the growth of fungus from the brain in cases of fracture of the cranium. Boerhaave, although he recounts its healing, antiseptic, and discutient virtues, when applied hot externally, and its aperient, warming, sudorific and diuretic qualities. when taken internally, adds such deterring cautions relative to its use, as have had, perhaps, great weight to the present day, in keeping it from so general and free use as it highly deserves. Boerhaave, nevertheless, prescribed Terebinthinates in some form or other, more frequently and more freely, and in a greater variety of cases, than any physician of his own or any subsequent period, down to the time of Dr. Home. His Medical Correspondence and Hospital Practice, evidently show that he placed great reliance on tere-Mead, who flourished at the same period with binthinates. Boerhaave, discourages the free use of terebinthinates; probably being influenced by the cautions of the latter above alluded to. Meanwhile we find Mead recommending a medicine, whose effects were as well known then as now, to be very similar to those attributed by himself and Boerhaave to the use of spirit of turpentine.

MEAD, in the second edition of his Medical Precepts and Cautions, published in the year 1745; and on the same page, in which he disparages the use of balsamics in gleets consequent to ill-treated virulent gonorrheas, gives for these

complaints the following prescription:

TARE OF Rheubarb, 3 iij,

— Gum Guaicum, 3 i. ss,

— Shell-lac, 3 i.

— Cantharides bruised, 3 ij.

— Cochineal, 3 ss.

Infuse these ingredients in a pint and a half of Rectified

spirit of wine:—strain off. Of this Tincture of Cantharides stronger than that of the present Pharmacopæias, he orders from 30 to 50 drops to be taken night and morning. Moreover, he says, "It has been my practice for many years to order this tincture, and as I found it very efficacious, I have recommended it to a number of physicians and sur-

geons."

Although, in the year 1782, the Spirit of Turpentine was again brought into notice by Doctor Francis Home, in his publication of the result of his "CLINICAL EXPERIMENTS, HISTORIES, AND DISSECTIONS" in the Royal Infirmary of Edinburgh; by which it was fairly established as more successful than any remedy hitherto exhibited in cases of Sciatica; and more effectually useful in Lumbago than any former application: Dr. Home, with very meritorious candour, acknowledges that he was induced to make trial of this remedy, (Spirit of Turpentine,) by its declared efficacy, satisfactorily proved in the Philosophico-medical works of Dr. Cheyne; and admits that many cures had been effected by its use before he entered the Clinical ward of the Infirmary. Some of the cases successfully treated by Dr. Home, were of many years standing; one had continued seven years. This very honest as well as learned physician and philosopher, thus emphatically publishes to the world his conviction of the potency of Spirit of Turpentine, and confesses his inability to explain its operation.

"It is not to be expected that any medicine will operate more powerfully than this does. Its sensible operation is various. It is difficult to explain its mode of operation."

Cullen says, "I have had some instances both of Turpentine and Copaib. producing a manifest inflammation of the urethra, to the degree of occasioning a suppression of urine; but when these went off, the gleet which had subsisted some time before, was entirely cured."

FULLER has known, dry, deep coughs, coughing up of

blood and pus, voiding of chyle instead of urine, with great pains and weakness, cured by Copaib. and has also found it to agree in hectic cases: he gave it in doses of from ten to forty drops. Cullen often found it to give relief in hemorrhoidal cases, when taken in doses of from twenty to forty drops, twice a day. SAMUEL COOPER, in his First Lines of the Practice of Surgery, says, that "Bals. Copaib. taken in doses of from 50 to 80 drops daily, relieves, by a peculiar virtue, the local uneasiness of piles." Darwin affirms, that "inverted motions of the lymphatics are reclaimed by Cantharides, Turpentine, &c., and again," "Bals. Copaib. and other native balsams are much recommended in gleets, and in fluor albus, perhaps more than they deserve." The same author makes the following observations: "The mucus of the bladder is seen in the urine, when Cantharides have been used, either internally, or externally, in such doses as to induce the strangury. Spirit of Turpentine is said to have the same effect. I have given more than a drachm of it twice a day, floating in a glass of water, in Chronic Lumbago, without this effect, and the patient gradually recovered."

As analogous effects, both curative and deleterious, have been alike attributed to the use of Balsamics, Cantharides and Spirit of Turpentine; and as some of the prejudice of antiquity still adheres to medical men of the present day, I have thought it might not be without a beneficial tendency, briefly to notice the several articles above named, and to apportion their respective merits, so far at least, as they may have any connexion with the various opinions at present entertained, respecting the value of Spirit of Turpentine. Since my own experience, and my observation of the practice of others, first influenced my opinion, my preference of Spirit of Turpentine to other remedies resembling it in many of their properties and effects, has for a long time been confirmed, and if possible

the strength of my conviction has been increased in proportion to the increase of my knowledge of the superior power of this active medicine, and of its more general applicability in cases of seemingly opposite characters. I have always found it much more gentle in its action on the system, and at the same time more efficacious than either the balsamics or cantharides. It was rarely, if ever, productive of those occasional exacerbations of disease, which so often follow the use of the former medicines in like cases. Balsamics and cantharides have both been found apt to produce strangury; whereas this painful effect is scarcely known in the use of the Spirit of Turpentine. Besides, none of the other articles like this have been successfully used internally as worm medicines; nor have they obtained any reputation as remedies in Sciatica or Lumbago. The Spirit of Turpentine has, without sufficient evidence to maintain the charge, been accused of producing the like distressing consequences which follow the use of the balsamics and cantharides in similar diseases. For my own part, I have never obtained the knowledge of a single fact from books, or conversation, or my own observations, that any serious inconvenience, or any permanent injury, ever resulted from the discreet use of this valuable remedy. What may be justly said of this, can hardly be said with truth of any other very powerful medicine. To refer to my own experience, I have known distressing strangury to continue several days after the removal of a blister, and have witnessed instances of strangury and tenesmus from the use of Bals. Copaib. as directed by Cooper for piles. No disease in which the internal use of Cantharides or any of the native Balsams has been persevered in for a considerable time, has occurred under my own observation, in the treatment of which I would hesitate to give the preference to Spirit of Turpentine both for its efficacy and its safety, with the exception of leucorrhea alone. In the treatment of this

complaint, I would rather use the Tinct. Lyttæ; yet I have known cases, in which it could not be borne, to any useful extent, or for even a short time, without the occurrence of distressing symptoms. In these cases, I have substituted the Spirit of Turpentine, and continued its use for months, (3ij per diem.) without the slightest inconvenience, and

with constantly increasing benefit.

I cannot help deeming the Spirit of Turpentine preferable to Bals. Copaib. in the treatment of piles. For twenty years I have been in the habit of prescribing it almost daily to be used both internally and externally, in various maladies; and every day's experience has added to my confidence in its safety as well as efficacy. It is my invariable prescription in cases of scalds and burns within the first forty-eight or seventy-two hours after the accident; and wherever I have been able to obtain submission to my directions, which has been sometimes impracticable, from blind and obstinate adherence to old prejudices, I have never failed to be gratified by the successful result of my remedy and the pleasing conviction of its surprising qualities, and unexpected efficacy, which it produced in the minds of my patients and their friends. In croup, after depleting and evacuating medicines had been used, I have found it a most pleasant and salutary expectorant and diaphoretic; and when, in some cases of sudden and severe attacks, that had resisted copious bleeding, and all attempts to produce vomiting had failed; and when in these desperate circumstances, a speedy death seemed inevitable, even sooner than a strong blister could produce any considerable effect, the Spirit of Turpentine has often suddenly operated with surprising benefit: sometimes the first, generally the third or fourth dose, of from five to ten drops, taken every half hour, has arrested or greatly moderated all the distressing symptoms. When this amelioration of the worst symptoms had taken place, the medicine was given Vol. 6.

less frequently for a day or two, with the intention of preventing their recurrence, and of subduing or assuaging the harassing cough and painful uneasiness which often continue for some time after, though without any impending danger. In slight attacks, I have frequently depended exclusively on the Spirit of Turpentine, without having any cause afterwards to regret my reliance on this medicine Sometimes I have administered it with perfect success after the operation of a gentle vomit. It is not without great satisfaction, I am able to state, that, in Croup. after one dose has been taken, I have never found any unwillingness in my patients to repeat and continue its use; they seeming always ready to take it as directed. When it was no easy matter to prevail on the patient to swallow other medicines, this was taken without objection, as if from a conviction of having experienced from its use great relief. I have no hesitation in affirming, from my own experience. as well as the confession of many respectable medical friends, that Spirit of Turpentine in obstinate gleets is the most appropriate and effectual remedy that can be prescribed. In a great number of trials, I met with no success whatever in the use of Tinct. Lyttæ, but never failed to produce an easy and often a speedy cure by means of Spirit of Turpentine. In complaints caused by worms, it is a more eligible prescription than Ol. Chenepodii, in toothach, and in the distressing nervous affection of the jaws accompanying gestation, and the catamenial period of females, it is preferable to the Oil of Cajeput. In the case of toothach, if there be hollow teeth, it should be dropped into them, or cotton moistened with it, should be inserted, or applied to such as may be defective. In nervous affections of the jaws, these and the gums should be gently embrocated with Having had frequent experience of both Oil of Cajeput and Spirit of Turpentine, used in the same manner in the like cases. I have no hesitation in declaring, that, in such

instances, the cheapest of the two remedies will prove the most valuable. Spirit of Turpentine has been lately introduced in the treatment of puerperal and yellow fever, both of which are classed among the most formidable of febrile disorders. I am without any personal experience of its effects in these fevers, and candidly own that I had never anticipated its being an appropriate remedy for either; nevertheless, we have very respectable testimony of its successful administration in large doses (3 iiss) in puerperal fever. Its advantages in yellow fever are more equivocal. In crysipelas of the face, it claims, in my opinion, a manifest superiority to all other topical applications. In several instances of this complaint which came within my notice, I am confident that they would have been lingering, if not dangerous with the ordinary treatment; and vesication and suppuration would, in all probability, have taken place; yet the alarming progress of the disease has been arrested in the short space of forty-eight hours, by the frequent, and almost continual, embrocation with clear Spirit of Turpentine; at the same time that the ordinary antiphlogistic remedies were administered. I have frequently made use of it as an embrocation in gout, with manifest abatement of pain; and it often seemed plainly to shorten the duration of the fit. It has been long in use as an embrocation in various painful affections of the joints. A very common prescription some years ago in St. Bartholomew's hospital, was the following;

R Spt. Tereb, : : 3 ij, Ol. Oliv. : : 3 iiss, Acid. Sulph. : : 3 j.

I have never known it to produce strangury in children, and very seldom in adults; and, indeed, of the latter with whom it had this effect, all had taken it in small doses for a harassing cough, for which I should, formerly, have prescribed demulcents and antispasmodics. These cases were

all relieved by a large dose of Spirit of Turpentine, and the cough vanished simultaneously with the strangury.

It has been administered in very large doses, even at the rate of two ounces every eight hours, for tape worm, and after the exhibition of the third or fourth dose, the worm has been expelled entire. Brown administered to a lad of 16 years one dose of 3iss, and two doses of 3i each, undiluted in the course of sixteen hours; when twenty feet of tape-worm were expelled. This lad had been afflicted six years.

A case lately came within my own observation, in which seven feet of tape-worm were evacuated. In this case the Spirit of Turpentine had been prescribed with a different expectation from that of expelling a worm, in doses of one drachm three times a day; the worm was voided after the eleventh dose.

In cases of lumbrici teretes, and ascarides, both in children and in adults, it has, in my own practice, proved itself a very successful remedy. In the treatment of children afflicted with these worms, an especial reason for the choice and preference of this medicine, is, that they take it with willing readiness, when it is almost impossible to get down any other. A delicate female child, about four years old, was my patient;—she continued for a month to take daily five drops four times a day, or ten drops twice a day, with continually increasing health and vigour. In the course of the first week, under this treatment, four teretes and a very large quantity of ascarides were discharged. I have often administered this medicine to children of from five to ten years of age, in doses of one drachm twice a day; and to adults, in doses of from one drachm, three times a day, to three drachms four times a day. My usual mode of administration has been by mixing the medicine with sirup or sugar, and adding thereto water, little or much, as the patient might choose.

Further Observations on the Modus Operandi of Ergot, by Ansel W. Ives, M. D.

In a former Number of this Journal, I made some remarks on the modus operandi of Ergot; in the course of which, an attempt was made to show the impropriety of altogether condemning that substance to disuse, because, in indiscreet hands, it had sometimes been the agent of dangerous and fatal consequences. It was maintained, that there were no evils inherent in the medicine, but that an incorrect theory of its mode of operation had led to its too frequent and improper use; that no medicine could produce muscular contraction in the uterus, and muscular relaxation in the parts contiguous, at the same moment; and, that, as the effect of Ergot has usually been shown on the gravid uterus by an immediate increase of its contractile power, it was a logical inference, that that effect might as fairly be denominated specific, as that caused by any other medicine in use. It was inferred also, from these premises. that the early opinion of the immediate cause of the death of the fœtus, viz. severe, incessant, and long continued action in the womb, was correct; and that it was inconsistent and unphilosophical to impute it to poisonous properties in the Ergot. The latter opinion is, however, by some physicians still pertinaciously maintained, and if it can be substantiated, we ought indeed to abandon for ever the article in question as a medicine; but if that opinion can be proved to be absurd, and the evils which have been attributed to poison, be clearly shown to have resulted from an ill-timed use of the Ergot, we ought to correct a dangerous practical error, and thereby preserve medicine of great value.

It is objected to the Ergot, that its effects are variable and uncertain; that when administered to patients un-

der the same or similar circumstances, it appears in one case to be inert; in another, to be deleterious to the mother, but harmless to the child; in a third, to poison the child without injuring the mother; while, at the same time, it is granted that it generally operates on the uterus without affecting unpleasantly either the mother or child. if such are the complicated and uncertain effects of Ergot, its operation is not only anomalous, but perfectly inexplicable; it is neither rendered probable by facts nor by analogy; nor is it reconcileable with any principles hitherto acknowledged in physiology. An attempt has been made to account for these extraordinary results, as for many other unaccountable phenomena, by the doctrine of sympathy; but will any one seriously believe that a medicine taken into the stomach of the mother, can excite a sympathetic action in the fœtus which shall destroy it in a few minutes, or at most, in a few hours, without exerting an obvious influence on the mother:—in other words, is it not absurd to suppose that the nervous system of the mother can imperceptibly receive such a shock, as to induce a sympathetic action which shall be fatal to the child? Again, can a poison be introduced into the circulation of the mother, which shall be innoxious to her, whose virulence shall destroy the fœtus in utero? If so, how has it happened, as has been pretended in the controversy in question, that the child sometimes escapes without harm, when the mother is well nigh killed by the poison? But independent of considerations of this kind, there are well authenticated facts, which prove that Ergot is not a poison; for though we have been told that in the hands of one man its effects were fatal in five children out of twelve, or rather we have been led to this inference from the catastrophe that followed its use; yet by others, it has been prescribed fifty,-nay, a hundred times, and its operation manifested in the expulsion of the child, without being succeeded by death or injury.

In addition to the testimony in the sequel, this statement is warranted by information received from other practioners of the highest respectability. These opposite effects could not have been owing to a difference in the quantity or quality of the medicine, for we have seen that it was alternately salutary and fatal, when administered in the same quantity by the same person. Again, it is not pretended that there is a peculiar susceptibility to the poisonous effects of Ergot in the parturient female; and why has not its operation been deleterious in other and different conditions of the system? I have taken large doses of it in substance without any other perceptible effect than slight nausea, and it is daily administered as an emmenagogue, and without ever inducing dangerous or unpleasant symptoms. These queries are naturally presented in attempting to account for the fatal consequences that have succeeded the use of Ergot, on the supposition of its being a poison; and it is confidently believed, that they cannot be answered, so as to justify such a conclusion.

Let us briefly examine the other side of the question. It is agreed by the respective parties in this controversy, in the first place, that Ergot generally increases the contractile powers of the gravid uterus; and secondly, that, sometimes, by some means or other, it has an agency in the destruction of the child. The first position being acknowledged, the second appears so perfectly obvious, as a consequence, in case the medicine is administered in improper doses and at short intervals, and in an unsuitable condition of the mother and child; that a large majority of the physicians who have made public their opinions on the subject, have expressed their conviction of this truth, though they have not thought it necessary to illustrate it by tedious detail. In the New-England Journal of Medicine and Surgery, vol. 1. p. 70, vol. 2. p. 353, vol. 5. p. 164, vol. 7. p. 217, vol. 8. p. 121; directions are explicitly given for

the use of this medicine, and facts stated, to show their importance, which, had they been duly regarded, could not but have determined this question without controversy. But though the "people perish for lack of knowledge," the pride of man will not suffer him to seek for the cause in himself;-the mischief must be in the medicine. It is contended, that the death of the fætus cannot be produced by the mechanical action of the uterus, because, notwithstanding severe, incessant, and long-continued pressure, the child is frequently born alive; but may not the difference in the covering of the brain be such, as to protect it from injury in one infant and not in another? May not the comparative size of the head of the child and the pelvis of the mother, be adapted to safe delivery in one case, and not in another? May not the various positions of the umbilical cord be such, as to expose it to pressure in one case, and not in another? Most unquestionably these varieties do frequently exist, and were it not that the pressure ceases during the intervals of pain, and the child is thereby permitted for a time to recede, it would be destroyed by it. Two instances of this kind have occurred to me, in which no Ergot was given. The first was in the case of a healthy middle-aged woman, whom I had before frequently attended, and who after lingering labours, had been delivered of four living children. saw her in a few moments after the first indications of approaching labour. From that time she had one unceasing throe for about fifteen minutes; when the child was expelled: it was of common size, and well-formed; it gasped, and was irrecoverably lost, notwithstanding every possible exertion, that could be made to restore it. Its colour was as livid as if it had suffered strangulation.

In the second case, the woman had been in labour, without much progress, for about an hour, when a pain came on so violent, that it was with difficulty that she got from her chair to the bed. After a moment's cessation, it returned, and without the least abatement, continued for at least fifteen minutes, during which time it affected the whole of the second and third stages of labour. The child appeared to be completely apoplectic, but by permitting it to bleed freely from the funis, and using other means for its recovery, it was resuscitated.

I know not how to account for the asphyxia of these children, if it were not caused by pressure, induced by the mucular power of the uterus. There was no manuel interference, no medicine given, the presentations were natural. and both women had gone their full period. It is well known that cases frequently occur in which the labour is equally rapid without injury to the child, but this only serves to prove what has already been stated, and what must appear perfectly obvious to the practitioner, that the state or condition of the child may in one case be more favourable to its safe delivery than in another. It is no uncommon occurrence for the funis umbilicalis to be so situated as to be felt during the progress of the labour, and in some instances the cessation of the pulse is distinctly perceived at every pain. In these cases, unremitting contraction of the womb, from whatever cause it might proceed, would be liable to destroy the child: it is granted, therefore, that extreme caution should be exercised in the use of Ergot. So far from contending for its indiscriminate or frequent use, I am fully of opinion, that it is often prescribed unnecessarily, and therefore improperly; and that should it ever become a popular remedy with nurses and midwives, it may be made an instrument of incalculable evil. But still, in the hands of a discreet physician, who knows how to estimate the powers of the medicine, and the danger there would be to the child, in giving it in an unnatural presentation, or in the early stage of labour, or before the dilatation of the os uteri, and its complete relaxation, and that of the surrounding soft

parts, or where there is a malconformation of the mother or the child; and who knows the danger there would be to the mother, if given before proper depletion with the lancet. or where there is a preternatural determination of blood to the brain, or great irritability of the stomach; and who knows the hazard there is, to both mother and child, if it be given in large and repeated doses, and particularly after it has begun to show it effects; - I say, in the hands of such a physician it may still be regarded as an article of great value. It may be the means of greatly alleviating human suffering, by frequently shortening tedious labours with perfect safety, and many times by superseding the use of the forceps. If there is not enough of professional honesty to continue in use a medicine possessing such properties, without wantonly abusing it, we ought also to abandon the use of every article in the materia medica, which by ignorance or inhumanity may be made the means of injury to mankind.

For the purpose of obtaining the testimony of physicians experienced in the use of Ergot, I addressed a circular letter on the subject to a number of respectable practitioners in this city, and in various parts of the country: with one exception, I was unacquainted with the sentiments of every person to whom I wrote on the subject in question, and I was gratified to find in their communications, a most perfect coincidence of opinion. From a number I have yet received no reply. To those who have favoured me with their opinions, I would here express my thanks; and, particularly, to the gentlemen whose communications I have taken the liberty to publish with these remarks.

I was obligingly furnished with the following, from Dr. Jacob Ostrum of this city.

"In answer to your inquiries on the medical properties of the Ergot, I reply, that although I am unable to give the precise number of cases in which I have administered it. they have not been less than fifty.—Its effects in increasing the contractile powers of the uterus, were unquestionably obvious in all those cases, excepting four or five, and in those the patients were exceedingly exhausted before the medicine was given. I have prescribed it in different stages of labour; but experience has taught me that it is only applicable to persons of lax-fibre and feeble constitution, and that it should be administered to none until the uterus is considerably dilated and the soft parts completely relaxed.

" In no instance in which I gave it, did any injury or any

unpléasant symptoms occur to the mother.

"In one case only in which I gave the Ergot, was the child stillborn; in this the labour pains were unusually severe, and the patient had never borne children before.

"In the first child of another patient to whom I gave it, the powers of life were suspended, but, after a short time, were

excited, and the child did well.

"In three cases in my practice this medicine unquestionably superseded the necessity of using the forceps: one of these patients was my wife. After having been four hours in labour, her constitution being naturally feeble, and her health poor, her strength was greatly exhausted, and the action of the uterus was completely suspended: she took two-thirds of a scruple of the Ergot in decoction;—pains came on, and she was delivered of a living child in nine minutes.

"In answer to your last question, I can confidently say, that I can foretell the time and manner of operation of the medicine, with more accuracy, than I can that of opium or mercury, excepting, that the latter always manifest some effects, whereas the former has failed in a few cases to produce any sensible effects whatever. So far as I am able to recollect, I should say that in not less than forty-five cases I have witnessed the effects of Ergot, in from eight to ten minutes after it was given, which produced the expulsion of the child in from two to twenty minutes after it began to operate.

"I will add, that I have given the Ergot about half a dozen times to expel the placenta, and in every case it produced the desired effect. I have always administered it in decoction, and I never have had occasion to prescribe more than a scruple at a dose, and never repeated the dose after the medicine began to show its effects."

Extract of a Letter from Dr. Wm. Buel, dated Litchfield, (Con.) Feb. 26, 1821.

"It will be impossible to give you a definite answer to the question respecting the number of cases in which I have administered Ergot. Soon after Dr. Stearns's publication on the subject in 1807, I commenced the use of the medicine, but with that want of discriminating caution, which, after publications, and my own experience and reason, taught me to correct. My obstetric practice was then extensive, and continued so until my removal to this town in 1815: I used the medicine in many instances in every year during that period.

"Neither can I state numerically in what proportion of cases the medicine produced obvious effects; but I am confident that the proportion of cases in which its effects

were not obvious, was exceedingly small.

"In no long time after commencing the use of Ergot, I imposed on myself the rule of refraining from its use when the presentation was unnatural, and until the os uteri was lax and dilated; I also did not think its use indicated when parturient pains were such as to indicate a tolerably expeditious termination of the labour.

"I have thought that in some cases, so vehement and constant were the parturient effects occasioned by the Ergot, that the mother might, on the whole, have suffered less if she had been left to the more slow and lingering operation of nature; but I never could discover that it produced any permanently mischievous effects on the mother, of any kind whatever.

"I have never witnessed death or any other injury of the child from the use of Ergot. I have, I think, (and I have

been particularly observing with a view to this point,) found still-born cases as frequent in natural travails, as where Ergot has been used. But I do believe that the premature or improper use of this medicine may produce the death of the child, or such effects on the head as to lay the foundation for permanent disease; such effects I believe can be produced in no way but mechanically, by hurried action, before the parts of the mother and child have had time and opportunity to become adapted to each other. I see no reason for believing that Ergot is deleterious to fætal life exclusively, and I am not acquainted with any evidence of its being poisonous to human life at all. know it is charged with having caused deadly epidemics, gangrened limbs, and many other mischievous things, as well as being fatal to human life; but I conceive the charges advanced in all these cases to be equally unsupported by evidence.

"I am of opinion, that when the mother is healthy and well-formed, and the presentation of the child natural, cases are extremely rare where delivery would not ultimately be accomplished without the use of the forceps; but I do think that I have known cases where delivery has been effected by the aid of Ergot, when most judicious practitioners would have thought the forceps admissible: indeed I think there may be cases where the use of Ergot will su-

persede the use of the forceps.

"I think definite effects may be anticipated from the exhibition of Ergot in parturition, when the circumstances of the mother and child are favourable to its use, with as much certainty as from any medicine whatever. The character which it gives to parturient pains is strongly Since my residence in this place my obstetric practice has been less than it was formerly, but I continue to have cases occur now, in which I do not hesitate to use the Ergot, and my confidence in it continues undiminished. In judicious hands, I believe it to be a powerful, safe, and useful remedy."

Extract of a Letter from Dr. Joseph A. Gallop, dated Woodstock, April 25, 1821,*—" With respect to the queries you make on the subject of the Ergot, I am free to state, in the shortest manner, my experience of it. I have used it more or less ever since it was first announced to the public by Dr. Stearns in the Medical Repository, in 1808, and I have very uniformly found it answer the suggestions there made, of its accelerating parturition.

"In a dose of about a common tea-spoonful of the powder, I have almost always found it to produce a violent, and almost unremitted contraction of the gravid uterus, in the act of parturition. I have never exhibited it in any other state of the gravid uterus; but from the best information I can get, it appears not remarkable for producing like effects in the gravid uterus under other circumstances. Much was expected of it in cases, of Amenorrhæa; I have made only a few trials of it in this disease, but I am convinced, that its emmenagogue power is not very conspicuous.

"It may prove beneficial or injurious, according to the state of the patient when it is given. If given prematurely, or under improper circumstances, it may prove injurious to the mother, and still more so to the offspring. If given before the os internum is considerably dilated, although it may increase the pains to an astonishing degree, yet the progress of the child may not be rapid, as it seems to possess the property, or the predisposition exists in the uterus, of producing a strong contractile power of the os internum; this hinders the progress of the child, and it may suffer, and no doubt many have suffered in this condition. If there exists

^{*} This Letter was enclosed to me by my friend, Elisha Sheldon, M.D. (Sheldon, Vermont) to whom it was written by the author.—I hereby acknowledge my obligation to them both.

any malconformation in either the mother or child, or any presentation that may require turning, it ought never to be given. It will readily appear that in all such cases, the violent and unremitted contraction of the uterus, may injure the infant, if not otherwise, by impeding its circulation, and in such cases it may often cause the deat' pof the child. again, in cases of a lingering kind, where here is no mechanical obstacle in the way, and where the patient is exhausted with inefficient pains, it becomes a valuable remedy or adjuvant, and saves the woman unnecessary distress and anxiety, and the practitioner much time: also in cases where the child is already dead, or has been dead for some time, and perhaps the mother attended with flooding, and none of the former obstacles present, it becomes very useful. Again, in retention of the placenta it is often useful: I believe it never increases uterine hemorrhage, but those women who use it in parturition, are not so liable to remorrhage as those who do not.

"I consider this singular drug an important addition to the materia medica; but, like all others, it ought to be exhibited with prudence, and according to the nature of the case. It usually shows its effects in ten or twelve minutes after it is given. I shall offer no speculations on its modus operandi. It seems to go some way to prove the existence of specifics I have always used it under the above restrictions, and I do not recollect of perceiving any serious injury; but I have no doubt of its being very injurious under wrong applica-

REVIEW.

Recherches Historiques et Practiques sur le Croup, Par Louis Valentin, Docteur en Médecine, ancien Professeur, Membre ou Associé d'un y Grand Nombre de Sociétés Savantes d'Europe et de L'Amerique: Paris, 1812. 8vo. pp. 682.

This is the most able and profound treatise on the Croup which we have met with, or the industry of an individual can be supposed able to produce. The author in the great research he has bestowed on the subject, was doubtless prompted as well by motives of humanity towards the tender age of childhood, as the desire of producing a work which should be worthy of the advanced state of medical science, and that reputation which his former publications have so deservedly conferred on him.

Croup, or Cynanche Trachealis, has been considered by many as of modern origin. However this may be, we have reason to believe that its causes have heretofore remained undefined and little understood; and repeated and painful experience has convinced us, that it is both rapid in its progress and destructive in its effects. The best physicians are not agreed on the method of treatment, which in general has been limited and unsatisfactory in its results, and those remedies which have evidently succeeded in many cases, have been found wholly inadequate, in by far a greater number of others. And, finally, we have not as yet attained to a full comprehension of the different varieties of the disease, and their attending circumstances, which sometimes confound its successive stages, and exhibit fatal presages almost as soon as the child is known to be affected; for we have seen infants at the breast beyond the succours of art, when the mothers only the day before, had suspected the approaches of this appalling malady. It required the great and

powerful inducements, we have assigned our author, and a subject thus perplexed and involved, to have excited him to the execution of the masterly treatise we have before us; where the reader will find collected and lucidly arranged, the facts and doctrinal opinions of preceding writers, with such discussions, elucidations, and practical results, as his experience suggested results, which a long life devoted merely to professional duties could never have furnished. We have, besides, a striking proof of his zeal and disinterestedness in the present undertaking, in the fact of his declining to compete for the magnificent prize offered by the Emperor Napoleon; when the same erudition and sound practical remark which are here displayed, would at least have placed him on a level with the successful competitors, and conferred additional eclat on his professional reputation; but he preferred to such considerations, to use his own language, "the sacred obligation of fulfilling that duty which every practitioner owes to the public, of rendering an account at the decline of life, of his efforts to assuage or diminish the sum of ills incident to his fellow beings, as a tribute due to society at large". Introd. p. xiv. The author appears to us to have fully accomplished the objects he had in view. He has taken a general, circumstantial, and minute survey of his subject, and left little to be gleaned by future inquirers. To give our readers a complete analysis of his labours, would extend this article much beyond our circumscribed limits; we shall, therefore endeavour to pursue the inquiry in its most interesting parts, and point out such of his doctrines as shall be deemed most important : having a due regard to the just expectations of our readers, who look for something more than unqualified praise or censure of those works which are thought worthy to claim their notice.

The work is divided into twenty-five chapters, seven of which are further divided into as many sections as the Vol. 6.

author's manner of treating the subject required. He gives us in the first instance, the various synonyms by which the disease has been designated, with the nosological distinctions and definitions, and after recounting the slight and imperfect notices of the disease from the ancient writers, whom he satisfactorily proves to have been acquainted with it; he enumerates the more exact and characteristic descriptions of the complaint as given by later writers: notices its comparative rareness and infrequency in northern latitudes, its prevalence in more southern countries, and those facts and circumstances which his own observation has enabled him to collect. A detail of the symptoms, characters, and progress of the disease, are then given at great length, with those distinctive marks which characterize the other affections of the respiratory organs, and which are likely to be confounded with it; the period of life most obnoxious to its attacks, as well as those causes which excite different diseases that partake more or less of its nature. The following points are then successively discussed. Does the croup ever rage epidemically? Is it contagious? Is it ever symptomatic of other affections, especially those of the skin? Has it any connexion or relation to rubeola, scarlatina, and pertussis? What morbid alterations of the internal surfaces of the trachea, bronchial tubes, and pulmonary cells, either by the formation of a membrane, the secretion of a puriform matter or other organic lesion, constitute the nature or essence of the disease? A great number of facts and illustrations calculated to establish sound pathological doctrines on each of these points, are here brought forward and insisted on. But still further, more exactly and demonstratively to come at the cause of the disease, and the way in which the membranous substance is formed, which sometimes coats the air passages; he has had recourse to various experiments on living animals. And finally, in the concluding chapter, he treats

very fully of the different curative means heretofore employed; their specific operation; the premonitory signs of the disease, and the efficacy and value of prophylactic measures: which last are the more important to be sought after, as we are as yet possessed of no remedy that does not frequently disappoint us, and the disease appears to be the more formidable in proportion as the patient just before the attack, enjoyed a more vigorous and perfect health.

The ample manner in which Dr. V. has treated each of the enumerated heads, has left little to be gathered by future investigators, from the voluminous records of medicine; or to be desired by the inquisitive practitioner, who shall seek the facts and experience of his predecessors, to guide him in the difficult and perilous duties of his calling. He will here find collected the labours of the numerous authors of Europe and America, who have contributed any thing on this intricate subject. So far as our knowledge serves us, we do not find any of them neglected, and it is with pleasure we recognize among them many of our own countrymen, as Rush, Bard, Bayley, Stearns, Dick, Lyon of Virginia, Archer of Maryland, Waterhouse, Banker, Hazeltine and White. *

Although the ancients knew little of Cynanche Trachealis, we think with our author that it did not wholly escape the observation of the father of medicine, who has recorded its more prominent characters in his prænot. sect. III. 317

^{*} Dr. Hosack of this City has published some valuable observations on this disease in the appendix to his edition of Thomas's Practice Of Physic, which are not noticed by our author, probably from the work not having reached France before the appearance of the present volume. Our professor divides the disease into idiopathic and symptomatic, and considers it as exhibiting three distinct stages, viz. 1st. the forming or apyrexial, 2d. the febrile, and 3d. the effusion of lymph, or the formation of a membranous substance in the trachea and bronchiæ. He has derived great advantage from the employment of vitriolic emetics in the third stage, and recommends them to the further consideration of practitioners.

De Morbis, lib. III. Cap. x. but that after him, few or no traces are to be discovered of the disease, down to the year 1576, when it appeared in Paris, simultaneously with an epidemic hooping cough, and was well described by Baillou. (Epidem et Ephem. Lib II.) After this we have no mention of the disease for more than a century and a half, when it was successively described by Starr of England, (Philos. Trans.1749,) Martino Ghisi of Cremona (Lettera Medicha 1748,) and Horne of Edinburgh, in 1755, who applied to it the appellation of Croup, a Scottish term, translating the French designation of Roupie, Gouttes Gluantes. For a fuller chronological view, the reader is referred to the work, where he will find assembled the different authorities up to the present time.

None of the various denominations, by which this disease has been designated, are sufficiently comprehensive to comprise its different varieties. In some instances a membranous lining is formed in the trachea and bronchiæ; in others a purulent fluid is poured out; in others again, autopsic examination has shown the glottis and epiglottis inflamed, without any such effusion; and lastly, the affection is simply spasmodic; so that the disease may be divided into the four following kinds; 1st. the membranous, 2d. the purulent, 3d. the sanguineous ordry, and 4thly, the spasmodic .- But our limits will not allow us to detail the proofs of these varieties. These different pathological conditions could doubtless be traced by a rigid analysis to modifications of atmospherical causes, and individual susceptibility acting as predisposing and exciting causes. The better to explain our ideas on this subject, we shall call to the recollection of our readers the physiological doctrines of Bichat on the system of the mucous membranes. These membranes line the organs of respiration and digestion. the eyes, the nose, the mouth, and the fauces. They form an intimate union with the skin, seem to emanate as it were

from its tissue, to have the same organic structure, and to be spread over the internal surfaces in like manner as the skin covers the external parts of the body. There is, however one remarkable difference between these systems, which is worthy of being considered. It is this .- Whilst the skin forms one continuous surface throughout; the mucous membranes form two distinct portions, which have no connexion whatever one with the other. The superior portion is continued over the eyes, through the lachrymal duct, throughout the internal surface of the nose, mouth, fauces, and the respiratory organs, on the one part; and on the other, throughout the œsophagus, stomach, hepatic ducts and intestines, quite to the anus, where it becomes identified with the skin. The inferior portion commences in both sexes at the external organs of generation, and extending throughout their internal surface, insinuates itself on the one hand, through the vas deferens, and on the other through the bladder and kidneys. Bichat did not content himself with tracing anatomically the development of these separate portions; he considered them in their pathological relations; how they were affected separately, and simultaneously, either in local or general affections. From such considerations he deduced the laws of their organization, functions, irritability, and the sympathies they maintain with the cuticular organ. 1st. That they have all, the same organic structure, and cover an infinity of glands. 2dly. That they serve as emunctories to the animal economy, and elaborate a fluid which defends them from the irritation of heterogeneous substances, either from within or without. 3d. The contact of foreign bodies shows them to be very irritable, and increases their secretion, as is proved by indigestion occasioning cough, biliary concretions, vomiting, &c. From these facts, and many others, which we are obliged to suppress, we conclude that if the cuticular organ becomes obstructed and injured in its functions, the consequence will

be, increased sensibility and energy of those of the mucuous membrane. Thus the functions of the skin are impaired by extreme cold, whilst at the same time the mucuous membranes have their's augmented, so that pulmonary exhalation becomes greater, and digestion is performed more vigorously. During excessive heat on the contrary, the internal secretions are diminished, digestion is impaired, and the secretion of urine more scanty. So also, if any cause should produce a sudden suppression of the functions of the skin, it is evident that a morbid action would be excited in the mucuous membranes, varied no doubt, by the attendant circumstances and the idiosyncrasies of habit. From such data there is no difficulty in explaining how a fulness of the stomach and intestinal canal, morbid reaction of the skin; air irritating the mucuous membrane of the trachea, &c. may cause anginas and pleurisy; -but we must leave to our readers the further examination of this subject, and proceed to apply these principles, to show how the different forms of Croup may arise from a variation of the exciting causes .- The following remarkable case occurred in our practice some years since, and will illustrate our ideas on this subject. A girl aged twenty-two years, of delicate habit, was seized in the midst of domestic fatigues preparing for her nuptials, with inflammation of the intestines. A few hours before her death she discharged per anum a pseudo-membrane about an ell long, which appeared to have adhered in every part to the surface of the colon. A more advanced state of the healing art may perhaps hereafter enable us to explain why this girl's disease was not membraneous croup; or why it did not rather take the form of diarrhæa or malignant dysentery?

We will now bring together those facts which are calculated to conduct us to a knowledge of the remote causes of the disease we are discussing. Dr. V. informs us, 1st. That this disease is most prevalent in cold coun-

tries, and 2dly. That it has become much more frequent in temperate latitudes than formerly, with this difference, that it used to prevail chiefly, at the same time with influenzas or epidemic catarrhs; whilst in our days it seems to be an additional and constant malady to which children are subject at all seasons, and in every place. How is this phenomenon to be explained? We are told that the rigour of the seasons has not increased; and that no one has been able to detect any source of infection to which the children of our days are continually exposed. The difficulties then in our opinion are to be conciliated by reflecting on the great and important changes which have been adopted within these sixty years in all civilized nations in regard to their physical education. Before this period the use of swaddling clothes prevailed universally throughout Europe, they were not dispensed with, either by day or by night, until the infant had attained the 15th or the 18th month. and was weaned: then it was clothed with a thick bonnet. surrounded by a cushion, to guard against injuries by falls; the body cased in a whalebone waistcoat, to which was added several other garments, and the child placed in a gocart, a sort of rolling cage, and allowed to move as it could, or else permitted to walk by the aid of leading strings. The child was kept in this continual restraint until the sixth or seventh year, when if it was a boy, he was dressed in the apparel of his sex, and allowed the ornament of wearing his hair full and long. All this was thought necessary to obtain a better formation of the body, which unfortunately, prejudice judged to be prone to distortions and spontaneous deformities. The writings of Jean Jaques Rousseau, and of many other enlightened physicians, contributed to bring into disuse these absurd practices, and to accord to infancy that freedom which their extreme mobility demands. But in adopting the counsels of these enlightened advisers, and laying aside the immense appareil of swaddling clothes, stays,

leading strings, go-carts, and cumbrous and uncleanly headdresses; mothers soon passed into the other extreme of exposing their children without sufficient covering to the inclemencies of the weather. Now it is, that mothers, especially young ones, delight to deck their tender offspring in light and fanciful apparel, with the neck, the bosom, the arms and the legs bare, so as to make them resemble little Cupids: and if the physician remonstrates against such dangerous exposures as calculated to derange the perspiratory function, which is naturally most vigorous during this period; he is answered, that all this is to fortify their constitutions, and inure them to atmospherical changes. These doubtless are among the principal causes why Croup has of late years become a frequent disease; is more prevalent in cities than in the country; among the rich rather than the poor, in temperate and variable latitudes, than in countries either very cold or very warm. These causes produce the greater effect, as the children of our days are permitted to enjoy much, more freely, the luxuries of the table than in former times.

After this long digression, let us now return to the context of our author. It is of the greatest importance to ascertain the different varieties of the disease, and the remedies that have proved most beneficial to each; for it sometimes happens in this disease, that those means which have been recommended in a way to merit our greatest confidence fail to answer our expectations at the bedside. Bleeding, the warm bath, emetics, expectorants, drastics, mercurials, and polygala seneka, are among those which have been most highly extolled. Specific stimulants, as the carbonate of ammonia, and the sulphuret of potass, have also had their advocates; but to attribute to them specific virtues because they have been employed in some fortunate cases, would be as absurd as wholly to reject them, seeing they have sometimes been efficacious. The following will

show what have been the experience and opinions of physicians on the employment of venesection. The physicians of Cremona, after the example of Ghisi, have employed it with great success. Home was in the habit of bleeding as copiously as the state of the pulse would admit, as were also Crawford, Michaelis, Ferriar, Cheyne, and the Swedish physicians. Bayley and Middleton of New-York, took blood chiefly from the jugular vein. Rush considered venesection as the principal remedy and Drs. Dick and Lyon, of Virginia, were in the habit of carrying it to the extent of producing deliquium animi. Physick of Philadelphia, bled an infant of three months, three times in one day, and with success. On the other hand, we are told that a Dr. Smith had succeeded in the treatment of eleven cases out of eighteen, without employing this remedy: that Dr. Baldwin, of Winchester, had succeeded in all his cases with other means; that Dr. Stearns, of Waterford, had treated fifty cases without bleeding, and only lost two of them; that this gentleman does not believe the disease to be inflammatory, or, at least, only secondarily so; and, finally, that the French physicians, Laudun, Vieussenx, Bernard, Brewer, De la Roche, Schewilgue, &c., have only employed it with the greatest caution. In the midst of so much opposing testimony, Dr. V. does not hesitate to recommend local bleeding, as justified by its success, and the constant practice of the German, Italian, and French physicians, without giving any other rule, than to abstain from its employment when it may be especially contra-indicated by the state of the system. As for ourselves, we are decidedly of opinion, that every acute disease with local determination to an organ, is attended with more or less of inflammation, which may assume the character of sthenic or asthenic, inflammatory or typhoid, according to the state of the system, and the nature of the predisposing and exciting causes. Vol. 6.

That in this last condition, there is indirect debility, with exhaustion of the vital energy, which would be still further increased by general depletion, and aggravated by stimu. lants. On this account it is that such a state of the system is so alarming; as was the case in the epidemic of Pneumonia typhoides, which prevailed in the city of New-York during the winter of 1812. The same typhoid type may sometimes occur in Croup, though doubtless more rarely, and then it would be most advisable to have recourse to local bleeding, as well calculated to relieve the local congestion, without enfeebling the vital powers; which, under such circumstances, it should be our great concern to maintain.

Numerous proofs are furnished by Valentin, of the good effects of those remedies, that divert from the fatal determination. We believe, nevertheless, that besides this principal indication, the physician should not neglect treating the disease as an acute malady, whose type may be remittent or continued, and require the active resources of our art, either on the recurrence of the fever, paroxysms of Croup, or the pulmonic oppression; until we have obtained a complete resolution of the disease.

In his chapter on Tracheotomy, Dr. V. has conclusively established its inutility in a disease which presents no parallel with the accidental lodgment of a foreign body, in the trachea; or even with Angina Laryngea, where the operation has been attended with success; for here the disease is confined to a part which can be commanded by such an operation; whereas in Croup, the disease is known to extend throughout the bronchial ramifications and pulmonic cells, and, moreover, may in some cases be only symptomatical of some other acute affection. Thus it is, that although the operation has been many times very well performed, both in Europe and America, and in every stage of the disease it has not, in any instance, prolonged the life of the patient;

for if the removal of some membranous substance has appeared to relieve the difficulty of respiration, it has only been momentary, and the patient has died as quickly, as if no such operation had been performed. We think the reasonings of Valentin have set this long contested question at rest, and proved the futility of any surgical aid.

We regret that our limits will not permit us to continue our analysis of this interesting treatise. We shall, therefore, close the article with an enumeration of the prominent features of the croup, and some general observations which the author's manner of treating the subject has suggested.

1st. The Croup is an acute febrile disease, of remittent type, sometimes continued, and has its seat in the mucous membrane of the trachea, most frequently extending throughout the ramifications of the bronchiæ and air cells; on which surfaces there is formed, in some cases, a pseudomembranous lining; in others, an exudation of a puriform and bloody fluid; in others again, there is simply inflammation, without any such depositions; and, lastly, the inflammation may be confined to the glottis and epiglottis, when it is denominated Cynanche Laryngea, or the spasmodic asthma of children. The duration of Croup is very uncertain; when it proves fatal, it is usually very soon, certainly by the 6th or 7th day; but cases that recover are sometimes protracted to several weeks, as in peripneumonia, and other pulmonic diseases.

2dly. The ancients have left us only imperfect descriptions of this disease, but sufficient to show that it has not arisen since their time. It is, however, less than a century since its ravages have been widely extended over large tracts of country in the old and new world, in northern regions, as well as in more southern latitudes, where the atmosphere is humid and variable. It has also been prevalent in the East Indies; but is almost entirely unknown in those of the West. The exciting causes are, whatever deranges the cuticular

functions, or produces grossness and fulness of habit. This is frequently preceded or followed by eruptive diseases, especially those that are constitutional, and have been imperfectly cured; and, finally, it occurs sometimes with epidemic catarrhs, but, stictly speaking, it is never epidemic. much less contagious.

3dly. As Croup in the great majority of cases is an inflammatory and sthenic disease, it in general calls for the employment of bleeding. In those cases where it is asthenic, blood drawn from the neighbourhood of the affected part is best calculated to relieve the patient, without the risk of inducing dangerous debility. Emetics, epispastics, the warm bath, mercury, antimony, polygala seneka, carbonate of ammonia, and the sulphuret of potass, have each, in their turn, been of signal service in the different varieties of the disease. As Croup is very liable to return after its remission and apparent cessation, it is important to guard against such an accident, by the proper exhibition of sudorific and tonic medicines, until there shall be a complete resolution marked by crisis, or a return of health.

4th. It would have been very desirable to have had the numerous cases recorded by Valentin, many of which are accompanied with the autopsic examinations, arranged and grouped according to their different kinds; and the remedies that had been found serviceable in each, particularly pointed out. By this means we should have arrived at a more precise knowledge of the different remedies, and been enabled to explain why a medicine which had been so successful in many cases, has totally failed in as many others. Let us hope, however, that some other investigator will follow on in the path so ably traced by our author, verifying his ingenuous confession, Que le champ ne se peut tellement moissoner, que les derniers venus n'y trouvent'à glaner: and participate with him in the honor of submitting to the dominion of our art, the most cruel malady which afflicts the tender age of childhood.

The Pharmacopieia of the United States of America, 1820. By the Authority of the Medical Societies and Colleges. Boston.—Ewer, 8vo. pp. 272.

THE work now before us may be considered as forming an era in the history of the medical profession. It is the first performance of the kind, as far as we recollect, compiled by the authority of the faculty throughout a nation. Collections of approved receipts for medicines have often been made in other countries, and there are several respectable ones in our own; but none has appeared under the broad and impressive sanction which distinguishes this. Sometimes, individual professors and lecturers have published results of their investigations. The Materia Medica of Boerhaave, the apparatus medicaminum of Murray, and the formulæ medicamentorum of Hugh Smith, are examples of this kind. Occasionally practical physicians have reduced to writing their knowledge and experience. The processus integri of Sydenham, the pharmacopæiæ of Berkenhaut and Dale, and the dispensatories of Quincy and James, belong to this class. A more solemn and authoritative body of instruction has proceeded from certain colleges of physicians, such as those of the learned associations of London, Edinburgh, and Dublin; and, latterly, France has furnished by command of her monarch, a national pharmacopæia, under the title of Codex Medicamentarius. It remained for the people of America to frame a work of this kind, which should emanate from the profession itself; which should be founded upon the principles of representation; and embody, as nearly as possible, the whole Corpus Medicum, in these free, independent, and United States.

A Political Constitution had been prepared, by a Convention assembled for that purpose. And it was con-

ceived, that a Convention of delegates, if duly appointed by the several colleges and societies, might form a medical Constitution for the use of all who prescribed, and of all who consumed medicines.

The Historical Introduction contains a summary, derived from the original documents in the hands of the Corresponding Secretary, of the commencement, progress, and completion of this pharmacopæia. (p. 5-16.) It conveys curious and interesting information. By this it appears that the project was first offered to the New-York County Medical Societies, early in 1817, by Lyman Spalding, M.D. and did receive their sanction. It was soon after adopted by the State Society in Albany, where measures were promptly taken to carry it into effect. After making known the plan to other individuals and associations, by regular correspondence, the concurrence of professional men was formally and solemnly given from the following states; to wit, Vermont, New-Hampshire, Massachusetts, Rhode-Island, Connecticut, New-York, New-Jersey, Pennsylvania, Delaware, Maryland, Kentucky, Ohio, Indiana, South Carolina, Georgia, New-Orleans, and the District of Columbia.

Pursuant to the original design, a national Convention was held at the City of Washington, in January, 1820, and this is the result of their labours. It appears, by a certificate of the President, Samuel L. Mitchill, that Lyman Spalding, of New-York, Thomas T. Hewson, of Philadelphia, Eli Ives, of New-Haven, Elisha De Butts, of Baltimore, and Jacob Bigelow, of Boston, were the preparing or publishing Committee.

In a sensible and well written preface, the principles which governed the Convention and the Committee, are laid down; the difficulties of selecting a materia medica, and a body of officinal compounds from the enormous mass of known articles, particularly stated; the delicate scholar-

ship requisite to the formation of a nomenclature, is portrayed; and the compilers seem to be fully aware of the profound knowledge of botany and chemistry, that are necessary for the execution of so arduous a task. They have had the great European models before them, and if they have not made a larger work, or a different work, it was not because they wanted precedents and receipts; for these were in amount cumbrous and embarrassing: but because they chose to render their performance as plain and simple as the stage of society, and the state of science, seemed to demand.

The Pharmacopæia is published both in Latin and English. The reason for this, arises partly from the dignity of the learned profession to which the members of the convention belong; and partly from the consideration that in various parts of our land, especially in the French and German settlements, the ancient language would be more intelligible than the vernacular.

That the convention understood the pharmaceutical bearing of the investigation, which they foresaw their performance would undergo, plainly appears from the following extract.

"It is the object of a pharmacopæia to select from among substances which possess medicinal power, those, the utility of which is most fully established and best understood; and to form from them preparations and compositions, in which their powers may be exerted to the greatest advantage. It should likewise distinguish those articles by convenient and definite names, such as may prevent trouble or uncertainty in the intercourse of physicians and apothecaries.

"The value of a Pharmacopæia depends upon the fidelity with which it conforms to the best state of medical knowledge of the day. Its usefulness depends upon the sanction it receives from the medical community and the public; and the extent to which it governs the language and practice of those for whose use it is intended.

"In most European countries, works of this kind have appeared under the authority of medical colleges and corporations. Their usefulness has generally been co-extensive with the influence of the bodies of men from whom they have originated. If they have been less useful than might have been hoped from their character and objects, it is because different works of this kind proceeding from different sources, and disagreeing with each other in their details, have been permitted to circulate in the same community; thus interfering with each other, and frequently introducing confusion into the prac-

tice they were intended to regulate.

"In the United States the evil of irregularity and uncertainty in the preparation of medicines has been felt with peculiar weight. Besides a number of Pharmacopæias, and Dispensatories founded upon them, which have been produced in different parts of the Union, we import various foreign works of the kind, some of which have become naturalized by republication in the country. The druggist and the medical practitioner are supplied, as their convenience may direct, with any one or more of these books; and of course the character of medicinal preparations is liable to vary in every state and city of the Union; and the physician is exposed, unconsciously, to administer to his patient medicines, essentially different from those which his

judgment has prescribed.

"That this evil has not been earlier remedied, is to be attributed, not so much to a want of conviction, on the part of the medical faculty, of the importance of the subject; as to the difficulty of obtaining in such a work the general co-operation of physicians throughout a country so extensive as ours. In several of the states, measures had been taken by the faculty to regulate the preparation of medicines, and with success, as far as it respected the circle of their respective practice.* But a national Pharmacopæia, which should be establish. ed and adopted by the consent of all the medical corporate bodies throughout the United States, still remained a great desideratum; being evidently the only mode by which a uniform system could be introduced at once, in all parts of the American territory. In the present volume, a work of this kind has for the first time been undertaken; and after being gradually matured by the advice, consent, and co-operation of physicians in all parts of the Union, it is at length committed to the press, as the result of their deliberations and decisions.

"In the formation of the American Pharmacopæia, the General Convention and their publishing Committee have had to encounter

^{*} The Pharmacopæia of the Massachusetts Medical Society was published in 1808, and afterwards adopted by the Medical Society of New-Hampshire The Pharmacopæia of the New-York Hospital was published in 1816.

those difficulties which must always attend the first publication of works of this kind. The selection of a Materia Medica; the formation or adoption of preparations and compounds, and the establishment of a pharmaceutical nomenclature, have constituted their chief labour. On each of these departments of the work they have endeavoured to bestow that degree of careful inquiry and mature deliberation, which the importance of the occasion demanded; and have pursued the course which appeared to them best suited to supply the wants, and promote the interests of the medical community in all sections of the country.

"The fault of the lists of the Materia Medica which have been adopted in different countries, has always been their redundancy, rather than their deficiency. The number of articles necessary for the management of diseases, and especially of those which any individual physician actually employs, is always very far short of the catalogue afforded by most Pharmacopæias. Besides, as the progress of medical discovery continually tends to the introduction of new articles into use, the Materia Medica must soon grow to an unmanageable size, if its enlargement be not followed by a corresponding retrenchment of superfluities. In consequence of reasons of this sort, many articles contained in European books have been omitted in the American Pharmacopæia. These omissions have been made only where the articles in question were considered inert, or where they were abundantly superseded by substitutes more powerful and more accessible.

"The system of retrenchment might, no doubt, have been more rigorously exercised without ultimate disadvantage to the interests of medicine. But it was thought to be at present more conducive to the public good, to retain on the list all those medicines which were believed to be so much in use in any part of the United States, that their omission would occasion inconvenience to physicians and apothecaries, and render the book less applicable to their wants.

"In regard to indigenous vegetables, a considerable number, no doubt, possess important and useful properties; others have pretensions not yet fully settled. But, as it happens in most countries, the number of simples occasionally employed in practice is much greater than it suits the proper compass of a Pharmacopæia to contain. In the present work, those native articles have been introduced which were considered to possess qualities sufficiently important, or which were found to be so much employed by practitioners, as to give them any claim to the character of standard medicines. In several instances

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native plants have been substituted for European ones of the same

genus, where their qualities were esteemed the same.

"With a view of discriminating between articles of decided reputation or general use, and those, the claims of which are of more uncertain kind, the Convention determined to refer to a secondary list such substances as were deemed of secondary or doubtful efficacy, retaining only on the principal list articles which might be considered of standard character. In the execution of this measure, particularly in the case of new medicines, they have possibly consigned to the secondary list some articles of more efficacy than others, which they have retained on the primary ones. In doubtful cases they have preferred to swell the subordinate rather than the primary catalogue, especially as this arrangement will be most likely to prompt farther investigations into the character of the substances in question.

"In that part of the work which contains the formulæ for the preparations and compositions, the Convention have preserved those only which have received the sanction of the faculty in this country or in Europe. They have thought it their duty to insert all which were reported to them by the District Conventions, except in cases where the near similarity of two preparations has rendered one of them superfluous. Alterations of established formulæ have been avoided, unless it be where the convenience and simplicity of medicines could be

promoted without changing their operation or activity."

That the Convention also knew their work was not in all respects complete, or wholly free from faults, appears from the foresight shown in relation to a future revision and republication of the work. The Convention understood that incuriæ or over sights might be expected, and that discoveries would continue to be made; they, therefore, before their adjournment, made the following provision for the future revision and republication of the book, that all errors might be corrected, and all improvement incorporated.

Resolved, That in case of the death, resignation, or inability to act, of the president of this Convention, the secretary shall forthwith issue writs of election to the several delegates of this Convention, who by written ballots addressed to him may elect another president.

Resolved, That in case of the death, &c. of the secretary, the president shall cause another to be elected as above described.

Resolved, That the president of this Convention shall, on the first

of January, 1823, issue writs of election to the several incorporated state medical societies, &c. in the northern district, requiring them to ballot for three delegates to a General Convention, to be held at Washington on the first of January, 1830, for the purpose of revising the American Pharmacopæia; and that these several institutions be requested to forward to the president, on or before the first day of April, 1829, the names of three persons thus designated by ballot; and the president of the Convention is hereby requested, on the said day, to assort and count the said votes, and to notify the three persons who shall have the greatest number of votes of their election; and in case there should not be three persons who have a greater number of votes than others, then the said president is desired to put a ballot into the box for each of those persons who have an equal number of votes, and draw therefrom such number of ballots as shall make the number of delegates three, and notify as before.

This resolution to apply in like manner to the middle, southern, and western districts.

In case neither of the delegates from a district can attend, it shall be the duty of such delegates to appoint a substitute who can attend.

Whereas the progressive improvements in medicine, as well as other causes, may render it expedient to revise the Pharmacopæia at an earlier period than is expressed above; it shall be the duty of the president to call the attention of the medical societies and colleges to the subject, whenever in his opinion the public good may require it.

The performance consists, as is usual in compilations of this kind, of a materia medica, and a body of officinal formulæ; carefully selected from the best authorities, and adapted to the practice of medicine in the United States: to the catalogue of the former is annexed a supplementary list of articles, too well recommended to be rejected, and worthy of further trial by judicious practitioners. (p. 51-57.) The latter are arranged under the several heads of Vinegars, Acids, Ethers, Alcohol, Gum Ammoniac, Antimony, Waters, Silver, Gold, Arsenic, Barytes, Bismuth, Lime, Cerates, Collyriums, Confections, Copper, Decoctions, Plasters, Extracts, Iron, Quicksilver, Infusions, Liniments, Magnesia, Honeys, Mixtures, Oils, Pills, Lead, Potash,

Powders, Soda, Spirits, Sponges, Tin, Sulphur, Syrups, Troches, Tinctures, Ointments, Wines, and Zinc.

Our limits forbid us to go into a detailed examination of the manner in which the Convention has executed the arduous and difficult task imposed upon them. It is sufficient for the present to observe, that as the great object was to produce, as far as possible, uniformity throughout our populous and increasing country, in the preparation of medicines, and thereby to produce additional confidence of patients in their physicians and prescribers; the faculty will receive this Pharmacopæia as the result of their own spontaneous efforts, to promote the good of their fellowcitizens, and to add dignity to the medical profession.

After all this, it may nevertheless be expected that differences of opinion will exist: Authors and venders interested in the copyrights of books now before the public, will probably not be pleased with the introduction of this volume; apothecaries accustomed to prepare medicines according to the receipts and forms in such works, may quit them with reluctance, or refuse to relinquish their Physicians educated in Europe, and habits of business. their pupils and imitators in America, may feel inclined, or even determined, to make preparations and prescriptions, according to the dominant pharmacopæias of the colleges or schools in which they were educated; and chemists may come forward in this case, as they have done in regard to the pharmacopæias of the London and other Colleges, and show abundance of their science in detecting alleged errors in the combination of simples here published. this we understand was foreseen by the Convention; but while the right of extemporaneous prescription is pursued, and the present work comes forth as a guide and rule only for the simples, and officinal compounds, we trust it will be cordially received by the profession generally.

A Treatise on Nervous Diseases, by John Cooke, M.D. F.A.S. Fellow of the Royal College of Physicians, and late Physician to the London Hospital. Vol. I. on Apoplexy including Apoplexia, Hydrocephalica, or Water in the Head; with an Introductory Account of the Opinions of Ancient and Modern Physiologists respecting the Nature and Uses of the Nervous System. Read at the College as the Croonian Lectures of the year 1819. 8vo. Vol. I. p. 469. London.

This is the first half of a work, which has for its object, the collection and arrangement of what has been heretofore known, and published on nervous diseases. It embraces a concise view of the opinions of physiologists, on the nature and properties of the nervous system, the manner in which its influences are exerted, &c. as introductory to the subject-matter of the book, which is more particularly devoted to the history, symptoms, and treatment of maladies referable to a derangement of the functions of the The present volume, with the exception of its introduction, is exclusively occupied with the consideration of apoplexy. The author appears, from this specimen, to be a man of excellent elementary education, extensive reading, and, for ought we know, may be addicted to deep reflection; though we confess that we were not a little disappointed to find him preferring to lead his readers through nearly five hundred pages of other men's opinions, rather than risk any doctrines of his own: for although we were given to understand in his preface, that his object was not so much to teach what is new, as to inculcate what is already known, yet his inducements to depart from this rule, have been so strong, and his opportunities for severe animadversion have been so frequent, that it is a matter of surprise, that he should have resisted the temptation:

and we hazard nothing by saying, that few men so well qualified by his reading as Dr. Cooke, would have been satisfied to be the mere compilers of other's opinions. The rigid adherence to the plan proposed in his preface, has materially affected both the character and usefulness of the book, and is undoubtedly its greatest fault. But great as it is, having such an unusual apology, we are not much disposed to censure it; though we may be permitted to observe, that we have fears that the true motive oft he author, will not duly be estimated by the majority of his readers; and that, while some will charge this manifest deficiency, to the labour of search, selection, and arrangement, which have left no room for reflection; others, with some show of probability, will refer it to that incipient state of fatigued intellect, noticed by Dr. Johnson, which is always marked by great appetite for information, though accompanied by weak digestion; and view the whole as a practical illustration of the poet's remark, that

> "Knowledge and wisdom, far from being one, Have oft times no connexion. Knowledge dwells In heads replete with thoughts of other men; Wisdom in minds attentive to their own."

Dr. Cooke's work, in so far as we can judge from the part which we have received, in place of being a treatise on nervous diseases, would more properly be called a dictionary of diseases of the brain, and will take rank of all such syllabic views, as are usually found in books of this kind. The world will, no doubt, be much indebted to him; for it is in fact a labour-saving book; but it is precisely that kind of labour which they are most slow to remunerate, because their prejudices are enlisted against the merit of an author, whenever truth whispers, that an acknowledgment of the obligation involves a censure on themselves: and many feeling their utter incompetency to compile a work of half its

merit, instead of assigning it its due proportion, will be disposed to charge the author with pluming himself, not so much upon the acquisition of what is necessary to be known, as upon knowing, what most others do not much regret to have forgotten.

The plan of the writer and the motive for making the book just what it is, is very modestly announced in the following passages.

"It was the opinion of a late eminent physician, that more real service may be rendered to medicine by the illustration of what is already known on the subject, than by any attempts to promulgate new theories or new modes of practice.—Impressed with the justice of this opinion, and the propriety of acting upon it, I have taken considerable pains in endeavouring to collect, to arrange, and to communicate in plain clear language, a variety of useful observations from the best authors, both ancient and modern, respecting the principal diseases of the nervous system. If the example which I have presumed to set, should be followed; if persons better calculated for the task than myself, would investigate other important diseases on a similar plan, a system of medicine would be formed which might prove eminently useful, both by lessening the labours of the student, and affording practical facilities to persons actually employed in the duties of their profession."

In the introductory chapter our author has brought together almost all the known opinions, or rather speculations, of former writers, on the nature of the nervous influence, its mode of transmission and communication, the nature of the living principle, the mind, the origin and improvement of intellect, &c. from Hippocrates, who is the first, down to Mr. Brodie and Dr. Philip, who are at present engaged in publicly discussing some part of these abstruse doctrines. As this is a very interesting part of the book, we shall extract as largely, as our limits will permit, for the benefit of our distant readers.

"Hippocrates considered the brain as an organ of great consequence and power in the human frame; but his notions of its structure are very indistinct: he calls it, however, the seat of sense and intelligence.

It is by this, he says, chiefly, that we think and understand, and see and hear, and know what is base and honourable, evil and good, pleasant and unpleasant, &c. And again, the brain is the messenger or instrument of intellect. And a little afterwards, some say, that we think, and are intelligent by means of the heart: but it is not so. Yet in the book De Corde, published among the works of Hippocrates, it is positively asserted, that the human mind is placed, or originates in the left ventricle of the heart. Hippocrates knew nothing distinctly concerning the nature and uses of the nerves, though he seems to have had some confused notions of the nervous power, which, however, he places in the veins. If the spirit, he says, which flows through the veins, be stopped, or interrupted, the part in which it is stopped becomes impotent: thus, in sitting or lying down, when the veins are compressed, so that the spirit does not pass through them, a torpor is immediately induced. He confounds the nerves sometimes with the veins, sometimes with the ligaments and tendons."

"Plato considers the brain as the seat of the governing principle. Aristotle considers the brain as a composition of earth and water. He says, that it contains no blood, and therefore has no feeling; that in its nature it is extremely cold, and its use is to moderate the heat and fervour of the heart. He places the sentient principle not in the brain, but in the heart. The heart, according to Aristotle, is the organ first formed; it is that in which the life of animals resides, together with the faculties of perceiving and feeling, though some, he says, are of opinion, that the powers of perceiving and feeling are in the brain. Of the origin, nature, and distribution of the nerves, both Aristotle and Plato seem to have been entirely ignorant."

Galen, whose knowledge of anatomy was not only more accurate, but infinitely more comprehensive than all preceding writers, considered the brain as the grand organ of intellect, and the seat of the governing principle of the whole man, "acting through the medium of the animal spirit, which is the immediate instrument of sensation and motion, being carried by the nerves to the parts which feel and move. This animal spirit is first generated by what he calls the vital spirit, which is formed by the heart and arteries. It is further prepared by an apparatus of a curious vascular construction, which he denominates the wonderful net-like plexus; and it is finally elaborated in the ventricles of the brain to which it is carried from the net-like plexus. In this plexus, the animal spirit remains for a considerable time; for nature when desirous of

preparing any matter very accurately, detains it long in the instruments of its preparation. He further observes, that in proportion as the matter to be produced is of consequence to the system, the organs which produce it are of a delicate construction: thus the vessels which prepare the semen and the milk are very delicate, these being fluids of much importance; but the vessels which prepare the a nimal spiri are of a still more admirable organization. The animal spirit upon which sensation and motion depend is contained, he thinks, in the ventricles of the brain, for on opening them the spirit escapes, and an animal is immediately deprived of sensation and motion. Hence some may suspect, he says, that if the soul be incorporeal, the animal spirit is its immediate habitation; but if corporeal, that the animal spirit is the soul itself. He is of opinion, however, that the animal spirit is neither the essence of the soul, nor its habitation, but its prime instrument, both in sensation and motion; the soul itself, whatever it may be, residing in the body of the brain. He describes very minutely, and generally speaking, very accurately, the distribution of the nerves from the brain and spinal marrow to the various parts of the body. He is of opinion that the mind acts upon the body by means of the animal spirit and nerves; and that the will being placed in the brain, at the origin of the nerves, gives the principle or beginning of motion to the first nerves, and by them to the muscles. He thinks that some of the nerves are hollow tubes. Speaking of the optic nerves, he says, that they have foramina; and that in the dissection of large animals, a lucid spirit may be seen flowing through them both at their origin, and at their insertion into the eyes. He admits the possibility that the spirit may flow through the minute branches of nerves, though on account of their extreme tenuity, it is not visible; but he inclines to think that the nerves are not all hollow tubes, and that in some cases the nervous power is propagated by a kind of impulse given to the nerve. We cannot absolutely pronounce, he says, whether the power flows from the brain through the nerves to the limbs, and the essence of the spirit reaches the feeling and the moving parts; or whether it in some way or other strikes the nerves, so as to induce in them a powerful change, which is propagated to the parts to be moved: whether there is in each nerve an innate spirit belonging to it, and which is struck by something coming as a sort of messenger from the first principle; or whether the spirit flows from the brain to parts, on every occasion when we will to move them; or whether, in the third place, there is merely a change in the qualities of parts contiguous to each other, (which appears to me to be hinted at, by some VOL. 6. 56

who say that the influence is a power without a substance;) I am not able easily to determine. What the immediate connexion between the animal spirit and nerves is, he is at a loss to pronounce."

This doctrine appears to have been received by all philosophers and physicians for upwards of sixteen centuries, or down to the time of Vesalius, who was the physician of the Emperor Charles V. who though a celebrated philosopher and very accurate anatomist, thought it necessary to detract much from the merit of Galen, in order to build up a colossal reputation for himself. Notwithstanding he affected to reprobate the sources from which Galen derived much of his theory, he appears to have agreed in opinion with him in all his leading opinions respecting the secretion and transmission of the nervous influence. Next to Vesalius we have Laurentius, who flourished in the latter part of the 16th, and beginning of the 17th century; his opinions differ little from those of Galen, whose doctrines he taught and defended, against the attacks of Vesalius.

The opinions of the celebrated professor of Gottengen next occupy the attention of the reader, but as every medical student is familiar with his doctrines respecting the structure and uses of the nerves, we shall pass on to the theories of some more modern physiologists.

M. Bichat considers life as of two kinds, animal and organic, each possessing two orders of functions. The first in the animal life, is from the exterior of the body to the brain; the second, from the brain to the organs of loco-motion and voice. The impressions of objects affect successively the senses, the nerves, and the brain. The first receive, the second transmit, and the last perceives these impressions; which thus received, transmitted, and perceived, constitute our sensations. In the first order of these functions, an animal is almost wholly passive; in the second, (which results from the successive actions of the brain, whence volition springs,) he becomes active. External bodies act upon animals by the first order of functions, and animals react upon them, by the second. In like manner a double motion takes place in the organic life; one continually forming the composition, the other the decomposition of animals. M. Bichat says, that hitherto anatomists have considered the nervous system as an uniform system;

but he thinks that the different branches of this system ought to be viewed as constituting two general systems, essentially distinct; the one having for its principal centre the brain and its dependencies, the other, the ganglions. The first belongs to the animal life, the second to the organic, being almost entirely distributed to the organs of digestion, circulation, respiration, and the secretions. Neither of them, however, is strictly confined either to the one or the other life; thus the nerves of the brain send some prolongations to the glands, and to the involuntary muscles, while the nervous system of the ganglions send some branches to the voluntary muscles: it is on the general disposition that the two systems are founded.

M. Bichat is of opinion that every thing relating to the understanding belongs to the animal life, and what relates to the passions, to the organic; and he attempts to prove, that the state of the internal organs influences the passions, and the passions the organic functions, both in health and disease.

M. Bichat describes, very much in detail, the external form, the organization, the properties, and the development of the nervous system of the animal life; he then proceeds to make some general remarks respecting the nervous system of the organic life; after which he particularly describes the situation, form, relations, organization, properties, and development of the ganglions, the principal centres of the organic life.

M. Bichat states, that the view which he has taken of the nervous system is different from that of all former anatomists. He considers each ganglion as a particular centre, in its action independent of the others, furnishing or receiving, like the brain, its own nerves, and having nothing in common with other analogous organs, but by anastomosis. There is, then, this remarkable difference between the nervous system of the animal life, and that of the organic, that the first has an unique centre, the brain, to which sensation comes, and from which motion proceeds; while in the second, there are as many little distinct centres, and consequently as many little secondary nervous systems as there are ganglions. All anatomists, even those who have called the ganglions little brains, have considered them as dependencies or enlargements of nerves in their progress; and since the greatest part of them occupy the grand sympathetic, they have presented them as a distinguishing character of that nerve; but, says M. Bichat, after the idea I have just given of the ganglions, it is evident, that this nervein reality, has no existence; it is a suite of nervous communications, a series of branches which the ganglions, placed one above another

reciprocally send off, and not a nerve proceeding from the brain or the spinal marrow. M. Bichat maintains that the nerves of the ganglions have properties which are entirely distinct from those of the cerebra; system; that they do not serve for sensation or voluntary motion, and that we only see them on the organs of interior life: thus we find them concentrated in the trunk, in the breast, and more especially in the abdomen, and scarcely at all in the head, where the organs appertaining to the animal life are, or in the limbs, which depend exclusively on that life. The ganglions and their nerves, he remarks, are not symmetrical, like the nervous system of the animal life, but are very irregular, both in number and in form. Scarcely any two ganglions are similar, or disposed in the same manner. They are sometimes lenticular, sometimes triangular, sometimes divided into several portions, and their most common position is along the vertebral column, where we see them successively one above another, the cervical, the intercostal, the lumbar, and the sacral, the communicating branches of which chiefly constitute the grand sympathetic. M. Bichat points out many particulars in which the matter of the ganglions differs from that of the brain and nerves; he then makes some remarks respecting the origin, course, termination, structure, and properties of the nerves of the organic life, and he finishes his account of the nervous system of the organic life, with declaring, that there is no subject which is more deserving of the attention of physiologists than this; all the others, he says, offer a series of phenomena already well known, while on this, we scarcely have a glimmering of light.

We are sorry that our limits will not permit us to lay before our readers the abstract of the doctrines of Le Gallois,
who has taken a view of the nervous system in his experiments on the principles of life, differing widely from that of
any preceding writer. All his experiments are made to prove
that the brain is by no means so essential to life as former
physiologists have supposed: he lays it down as a first principle, though stated hypothetically, that sensation and motion
are the product of organization, or that these two faculties
depend upon a particular principle produced by organization.
He attempts to show that the brain is not necessary to life,
by the fact, that certain animals will live for months after
decapitation, as reptiles, turtles,&c.,and as in warm-blooded
animals he succeeded in preserving life for several hours

after decollation, by the simple process of pulmonary insufflation, he thence concludes that the vital properties do not wholly reside in the brain. The principle of life, in so far as the trunk and its viscera are concerned, he maintains, resides in the spinal marrow, and not only so, but that the life of each particular part depends upon the integrity of that portion of it from which each particular nerve arises, thereby making as many seats for the residence of the living principle, as there are points of origin of the nerves.

M. Le Gallois is of opinion that life is the result of a certain impression of the arterial blood upon the brain and spinal marrow, and that, therefore, the only two conditions necessary for the maintenance of life in any portion of an animal, are, integrity of the corresponding portion of the spinal marrow, and the continuance of the circulation. The same distinctions between the voluntary and involuntary functions, as are insisted on by Bichat in his theory of the two lives, he also recognises; with this difference, however, that whereas Bichat explains the phenomena of the last order of functions on the principle that their organs derive their nerves from the great sympathetic, which, according to him, has no connexion with either the brain, or the spinal marrow, Le Gallois considers them as those which most largely participate in the influences of both.

Our author next proceeds to give, with some detail, the opinions of Philip, Brodie, Hunter, Abernethy, Lawrence, and a number of other Physiologists and Metaphysiologists: but as it is not at present our intention to remark upon the various merits of the writers, whose opinions he has ingrafted in his work, we will dismiss this part of the book with those of Mr. Hunter, as transcribed by Dr. Cooke.

"I consider," Mr. Hunter says, "that something similar to the materials of the brain is diffused through the body, and even contained in the blood, between which and the brain a communication is kept up by the nerves. I have, therefore, adopted terms explanatory of this theory, calling the brain, the materia vitæ coascervata; the nerves, the

chordæ internunciæ; and that diffused through the body, the materia vitæ diffusa." Mr. Hunter thinks, that the blood has as much of the materia vitæ diffusa as the solids, and that it is the support of life in every part of the body; that no animal can be perfect without the blood, which must be kept alive, and for that purpose must have motion, and that in a circle. "Here, then," he says, "would appear to be three parts, body, blood, and motion, which latter preserves the living union between the other two, or the life in both. These three make up a complete body, out of which arises a principle of self-motion; a motion totally spent upon the machine, or which may be said to move in a circle for the support of the whole; for the body dies without the motion of blood upon it, perhaps pretty nearly in equal times. Life, is in some degree, in proportion to this motion, either stronger or weaker; so that the motion of the blood may be reckoned, in some degree, a first moving power." Mere composition of matter, however, Mr. Hunter says, does not give life; for the dead body has all the composition it ever had; nor do organization and life depend in the least on each other. Organization, he observes, may arise out of living parts, and produce action; but life can never rise out of or depend upon organization. An organ is a peculiar conformation of matter, (let that matter be what it may,) to answer some purpose, the operation of which is mechanical; but mere organization can do nothing, even in mechanics; it must still have something corresponding to a living principle; namely, some power. This opinion Mr. Hunter supports by observations made on the process of incubation. He acknowledges, however, that " life is a property we do not understand; we can only see the necessary leading steps towards it." Its effects may, however, he thinks, somewhat illustrate its nature: "thus it is something that prevents the chemical decomposition, to which dead animal and vegetable matter is so prone; that regulates the temperature of the bodies it inhabits; and is the cause of the actions we observe in them."

As we have said before, the world is indebted to Dr. C. for collecting and arranging the various opinions of former writers on the subject of the brain and its diseases: in doing this he has displayed much reading, research, and scholarship, and we are happy to bear our feeble testimony to his merits in these respects, though we think it a subject of regret, that an author who writes for the junior members of

the profession should exhibit such various doctrines without a single observation, by way of criticism or comment, on their moral tendency. Some of them are absolutely to be reprobated, and others are utterly unintelligible, and we think he has extracted most largely from those which are most exceptionable. Some parts of Dr. Philips's doctrines, we confess ourselves unable to comprehend, as, for instance, "that the vessels of secretion are independent of the nervous influence, while the function of secretion is very far from being so;" and again, "that the powers of the heart, vessels of circulation, of the muscles of voluntary motion, of the peristaltic motion of the stomach and intestines, &c. are independent of the brain and spinal marrow; and yet capable of being influenced through them."

Some part of Mr. Lawrence's we are free to aver; he had not a clear conception of himself, for his attempt to explain what life is, and wherein it consists, if closely examined, will be found to set all definition at defiance. The difficulties attending disquisitions of this kind are neither few nor small, as the experience of almost every writer who has attempted them fully testifies: all those whose good opinions of themselves have prompted them to explain the rationale of the operation of mind on matter, and search out the proximate cause of intelligence; from the first sophomore philosopher who deemed himself wiser than his teacher, down to the last adult of the race, who are fated never to attain the years of discretion, have invariably been compelled to reason in a circle, or manufacture a patchwork of phrases, for which no one language can furnish sufficient materials, in order to convey to the reader what the writer never understood; or boldly avow themselves the apologists of downright materialism, teaching for philosophy such doctrines as both common sense and natural conscience refuse to recognise.

On the subject of apoplexy, Dr. C. has collected the

opinions of a very numerous list of writers, from the time of Hippocrates to the present, intending to present at one view all that is at present known on this subject. It is obviously a labour of no small difficulty to write upon a disease well understood, and at the same time make the book interesting from the novelty of its doctrines; and the author fully aware of this, has not even attempted to arrange the evidence, or balance the testimony furnished by his numerous quotations: he has given a statement of the various views of different writers, and left the reader to judge of the results.

The subject is divided into chapters, the first of which embraces its history and definitions; the second, the results of post mortem examinations; the third, the causes of the disease as laid down by different writers; the fourth, its distinctions; the fifth, its diagnosis and prognosis; the sixth, its treatment. The seventh, treats of Lethargy, Coma, Carus, Cataphora, &c.; and the eighth of Apoplexia Hydrocephalica. Each of these several subjects is handled full as much in detail as could consist with perspicuity, and if we except the 3d, 6th, and 8th chapters, which might have been improved, they will be found to contain, if not all that is necessary, at least all that is known at present on this subject.

Under the head of causes, very many of which are enumerated, we are surprised to find that Dr. Cooke has not included cold, except, indeed, as predisposing to the disease. There would seem to be little reason to doubt, that those who perish from cold in very severe weather, on an exposed coast, as shipwrecked sailors, and those who die from the same exposure in snow drifts, as frequently happens to post-riders and teamsters, are invariably carried off by apoplexy, and the reasonings of Mr. Portal, on this subject, notwithstanding our author's paragraph to the contrary, are, in our view, as conclusive as the nature of the case admits, and the want of the confirmatory evidence of dissection.

is by no means a sufficient ground to reject the doctrine, particularly as all analogy appears to favour the opinion. The premonitory evidences of danger from such exposure, such as torpor, listlessness, coma, and lethargy, are precisely those symptoms which in our apprehension call for the same treatment, and yield to the same means as are found serviceable in apoplexy; it is true, that it would be madness to carry them to the same extent as would be required in cases of the worst forms of this disease, yet the cure depends upon the same principles, the means only differing in degree, and requiring to be modified in order to provide against the extensive lesions of those parts most remote from the centre of circulation. The application of cold to the stomach when the body is much heated, will also help out the analogy; for all those cases of disease, occasioned by the drinking largely of cold water in very warm weather, are attended by all the symptoms of apoplexy; and the treatment, above all others, best calculated to relieve the patients, is such as the most well marked cases of apoplexy invariably demand.

Under this head also, we should have been pleased to have found some further remarks on the subject of intemperance. Dr. Cooke allows it to be not only a predisposing, but often an exciting cause: for ourselves, we have no hesitation in giving it as our opinion, that this alone, if the subject were severely scrutinized, would be found capable of accounting for a very large proportion of those cases of apoplexy which have been heretofore referred to other causes. The fact, that intemperance may, and does in many instances exist as an habitual vice, without being marked by any external evidences of excess; that it is very possible for a person to continue a long course of improper stimulation, without betraying any symptoms of inebriation; and the close connexion, and we had almost said relationship, which obtains between diseases of the liver and kidneys, gout, dropsy, and apoplexy, which in many cases seem to be vi-Vol. 6.

carious, appear to support this conclusion. We have always been of opinion, and we incline to believe that the impression is very general among the physicians of America, that it is hazardous to attempt the cure of gout, by any active or efficient measures, and if we look for the cause of this apprehension, it will be found in the fact which daily experience continues to support, that when even suspended, it is very liable to be followed by a much more dangerous disease, viz. apoplexy, or dropsy: the conclusion is natural, (though this by the way.) that gout is rarely, if ever, an idiopathic affection.

The treatment of apoplexy, which occupies nearly eighty pages, will leave little room for improvement; the general indications of cure have been long settled and so generally adopted, as to preclude the necessity, if not the possibility of any successful attempt to controvert them: the most, therefore, that could be expected of our author, was to lay down the various means by which they can be most conveniently and promptly answered; this is done very much in detail, but we have to regret here, as in other parts of his book, that though he has transcribed the reasonings of a numerous list of authors, he has left the reader to draw his own inferences, and has neither balanced their opinions, nor given us the results of his own convictions. The subject of the exhibition of emetics, in the discussion of which much ingenuity might be displayed, and much interesting truth elicited, he passes over with a few common-place reflections, which leave us in doubt whether he considers them remedial or injurious.

The last chapter contains a full exposition of the doctrines and practice of almost every celebrated author who has treated Hydrocephalus Internus, except Dr. Cooke himself: the views of many of the writers whom he has quoted, however various in some points, appear to assimulate very closely on the subject of its treatment, which consists of

local bleeding, the exhibition of active cathartics, blisters, caustics, setons, cold applications to the head, mercury, externally and internally, and digitalis, which by the way we consider the most equivocal remedy in the whole catalogue. Various causes have been assigned to this disease, but they are all ultimately referable to two great classes, viz. those which induce active inflammation of the brain, and those which affect it intermediately, inducing the symptomatic disease, which is by far the most frequent, as well as most fatal. A peculiarity belonging to this disease, is, that it requires to be actively treated before there is unequivocal evidence of its existence, and that remedies are required to be used with a view to prevent its complete evolution; as experience has most unfortunately shown, that when well formed, it is almost invariably beyond the reach of remedy. Our limits will not permit us to go as largely into this subject as we could wish; it has successively employed the attention of some of the most intelligent men belonging to the profession, and Dr. Cooke has, at considerable pains, abstracted their various points of doctrine and practice. If we were required to select from his numerous list of authors, we should particularly recommend, the reading of the works of Whytt, Cheyne, Rush, Yates, Coindet, and Abercrombie, whose views when studied will be found not only to consist with fact, in so far as they are susceptible of that kind of proof, but very nearly with each other, when their reasonings cannot be subjected to that ordeal. On the whole, Dr. Cooke's book, in its present form, is calculated to be extensively useful, notwithstanding its imperfections, which are not the less excusable, because they are chiefly quotations, since he has ingrafted them in his text, and suffered them to be published without comment; but its perusal has been accompanied with a feeling of regret that talents of the first order should prefer to employ themselves in collecting and publishing the opinions

of others, when half the pains which are here expended, would, if properly directed, have sufficed to have procured for himself a distinction as an author, infinitely more durable that any which he can expect to derive from this compilation.

Discourses on Cold and Warm Bathing with remarks on the effects of drinking Cold Water in Warm Weather. By John G. Coffin, M.D. Boston, 1813—pp. 75.

ONE would think that there was no remedy in the whole compass of medicine more likely to be a favourite with all classes of the community, than the employment of cold and warm bathing, especially the latter. Certainly there is none that holds out so many inducements for general adoption, both as a prophylactic and a remedy. Whilst their effects are in general very evident, can be precisely appreciated, are capable of being regulated with great exactness to suit particular cases, and any ill effects that may arise from their injudicious use, for the most part readily obviated; their employment may be justly esteemed among the luxuries of civilized life, equally conducive to impart tone and elasticity to the general habit; and by cleansing and exciting the dermoid system, to maintain its functions in healthy vigour, and thereby to take from them the susceptibility of morbid determination to internal organs, which is so frequently the cause of dangerous disease.

Notwithstanding the ingenious and well-directed labours of recent writers, both in England and on the Continent, inculcating the important benefits to be derived from these means in the treatment of many diseases, they are now scarcely more employed than before the time of Currie,

who led the way in this beneficent inquiry, and whose directions for the application of cold water are generally acknowledged to be safe and judicious. The observations of Marcard, of Germany, proving the decided antiphlogistic powers of the warm bath, and that it deserves to be considered as an important agent in subduing inflammatory action, have been followed with no better success: physicians still continue to look on it merely in the light of a dernier resort in aggravated cases, or a remedy adapted to some few diseases, such as those arising from spasm, affections of the urinary organs, and the inflammatory diseases of children. In our judgment it is precisely in these last cases where its effects are most problematical, for very young children exhibit great aversion to the immersion, and their struggles to avoid it, must rather tend to increase the excitement, and aggravate the inflammatory affection; or at least render the remedy nugatory.

It is not our business at this time to set forth the advantages to be derived from the general introduction of the external application of water, as one of the established means of combating disease; neither shall we attempt to state the cause of the general reluctance on the part of physicians, as well as patients, to employ for the removal of disease, what the ancients purchased as a luxury at so great a price, and the eastern nations still esteem as a source of high sensual gratification, and practise as a religious rite. We do not know a better method of obtaining that consideration for this subject, which it really deserves, than bringing it fairly before the public in a popular Treatise, which has been done by Dr. Coffin of Boston, in the little tract before us. The Doctor has urged, with much point and ingenuity, the safety and propriety of frequent ablutions; and whilst his work is well adapted to answer the author's principal object, it is not unworthy the attention of the professional reader. We have nowhere

met with more satisfactory and concise directions for bathing, than the following extracts from Dr. Coffin's tract. If they were generally inculcated, they would do much to allay the apprehensions that now prevail on this subject.

Directions for Bathing.—1. We are never to enter the cold bath when the temperature of the body is below the standard of health: if it is a few degrees above this, the bathing will be propor-

tionately more grateful and invigorating.

2. We should never remain long in the water; no longer than to secure a vigorous reaction. The common mistake on this point is, not only to remain in the water till the glow of warmth arising from the shock is established, but till it is dissipated by continuing in the water too long, or by returning to it too often.

3. We are to bathe before breakfast, or better before dinner.

4. We are to bathe when the stomach is empty, or nearly so. And

5. We are to bathe every second or third day only,—or if our bathing depends on the tide, we may bathe several days in succession, and then omit it as many.

1. The warm bath should be entered by persons in health at 93 degrees of heat, and after waiting a few minutes, and attending to our sensations, its temperature should be so altered, if any alteration is re-

quired, as to render it the most grateful to our feelings.

When a thermometer cannot be had, the water should be brought to that temperature which feels neither hot nor cold to the arm, or some part of the body usually covered, and after entering the bath at this degree of warmth, it may then be raised to that temperature which is most pleasant.

If the temperature of the bath is what it should be, it will supply any deficiency, or counteract any excess of heat, in him who bathes.

2. The best time for bathing is the forenoon, after the breakfast is digested. The cases in which it is allowable or expedient to bathe in the morning or evening, are few, and to be regarded as exceptions to the general rule.

3. It is not easy to point out, in a general direction, any precise period as the best time for remaining in the bath.

We feel ourselves called upon to object to the author's views on the effects of drinking cold water in warm weather, as calculated, if adopted, to cause those who peril themselves, by committing this imprudence when much heated, to neg-

lect those precautions that are now generally observed, and which doubtless often avert any ill consequences. Dr. Rush did not, as the author intimates, say that cold water might be drank with impunity under these circumstances, provided the person previously washed his face and hands, or grasped the vessel for a short time. All he pretended to. was, that such a proceeding diminished the hazard of the draught; and we think the experience of every summer since, has shown the wisdom of the directions. To maintain that the application of cold water to the face and hands, (parts by the by much accustomed to its impression,) when the system is heated, perspiring, and the vital organs tumultuously excited by exercise is hazardous, appears to us carrying the ingenious doctrines of Currie a little too far, and is contrary to the experience of every day labourer. We are ready to admit that the application of cold water to the whole body, or exposing it naked to a current of cool air, under such circumstances, would be highly perilous; but who has not felt the cool and refreshing effects of washing the face and hands in cold water, after fatigue and undue exertion? Its effects cannot be otherwise than safe and salutary: It acts by subtracting the excess of heat, allaying the inordinate action of the arterial system, checking perspiration, and diffusing that gentle and agreeable glow, which no system in health, however feeble, will fail to experience from the reaction of the sanguiferous system. Now this is the very condition we wish to bring about, in order that cold water may be taken with safety in any quantity, and what would invariably happen, if the person had patience to wait the full effect of the precautions he had used. the whole, we agree with our author in the conclusion that the most effectual way of avoiding the ill effects of drinking cold water, is to abstain from it altogether while heated, and rest contented with ablution merely.

Appendix to the Review of the Medical and Philosophicae Essays, &c. by I. L. E. W. Shecut, Practitioner of Physic, Member of the Literary and Philosophical Society of S. Carolina. Charleston, pp. 394. Med. Rep. Vol. V. N. S. (Announced Vol. VI. p. 102)

Replications, have rarely been provoked by the Editors of this Journal, from Medical writers, whether controversialists or auxiliary contributors. They have been still more rarely called upon to correct any remark, which a pure regard to truth had dictated to them in doubtful and contested questions. Several hundred performances have thus been analyzed and recommended to their friends, for the benefit of the reader, and the honour of their authors. But it has happened that, in the department of Review, certain subjects could not be commented upon without some exceptions. Notwithstanding, in the discharge of this duty, the Editors were not willing to adopt, the alternative of an absolute silence, nor pass works and authors unnoticed, whose experience and labours entitled them to great credit and public acknowledgment.

With this liberal rule of conduct, they have to regret, however, that their Review of the Medical and Philosophical Essays of Dr. Shecut, in volume V. has so much exasperated his feelings, as to induce him to arraign the Reviewer, and to charge him with want of dignity and impartiality; nay, with having stained his columns with abundant errors and misconceptions. It is a consolation withal, that he judiciously premises, that "much good to the literary world may be derived from diversity of opinion, both in theory and practice, among authors and reviewers." And who in this predicament are to judge and decide? He answers, "the thinking and reflecting part of the community." We certainly could not wish a better tribunal for this apologetic

justification: It is pointed out by Justitia. Justice then shall be done, not only with all possible regard to the sacred principle, but with the same deference and respect as here-tofore manifested to Dr. Shecut in our Medical Repository, and which has not been impaired by the imperfections noticed in the subject of our last Review.

Under the author's proffered concession of liberty of opinion, and diversity of inferences, the Editors would beg leave to dispense with entering into a tedious explanation of minor subjects of the replication, (first and second Essays, published in the Charleston newspaper, called The Times,) of the 11th and 15th of August, 1820. None of them can affect the reputation of the work or of the author, any more than they can that of the Med. Repository. But we will scrupulously submit to the public the charges alleged against the Editors, in the subsequent Numbers of the 18th, 22d, and 23d: with the respective textual evidence. It will thereby be found, it is hoped, that no malice prepense, no misconception, no want of candour and dignity in the account given to the public of the work of Dr. S. is chargeable to the Editors, who at this time would respectfully advise that the abundant materials in the Essays might be condensed and better arranged, to form a useful book, and one which could no longer suggest the inferences which he now disavows.

The first charge against Dr. S. was, that he had at last effected "a compromise with the contagionists and importers of yellow fever, by making it a disease of human contagion, importable and communicable from person to person, or from body and bed clothes, by what he calls fomites; superseding, by this theory, all that he had written respecting the operative influence of electricity on the formation of pestilential fevers."* This charge is repelled by surmising "that the paragraphs which gave rise to it, ought not to have been viewed in the light of the medical creed of

the author, but merely as arguments of the contagionists, which he promptly refutes."* But there is no such explanation in page 116, in the section, the chapter, or the book, from which the declaration was made out. Furthermore. this Essay on the yellow fever is an entire work of itself, dedicated to the sons and daughters of the late Dr. Ramsay, in which not the smallest intimation is given that the author disserts upon another's theory, and not upon his own. Nor is the allegation rendered more plausible by the observation of the author of the dissertation, that the disease in Charleston never (instead of rarely) turned out to be contagious by the effect of his gaseous poison, This exception, besides, cannot subvert the principles he has laid down; exceptio probat regulam. And as for the absence of thunder and lightning, which he notices (p.115.) as concurring in the formation of that specific gaseous poison, it is here only a subsidiary circumstance, and not the principle as established in the subsequent Essay on electricity.

It is said by Justitia, "It is due to the author, who has ever ranked amongst the most strenuous supporters of the doctrine of the domestic origin and non-contagious nature of the yellow fever, that this unfair and uncandid perversion of his meaning should be explained and corrected." The Reviewer has not carried up his criticism either into the simple or complex creed of the author. He has only pointed out the meaning of words which are perfectly comprobatory of a doctrine contrary to that which he has professed. Better to illustrate this inference, he will permit us to transcribe without comment the following from page 147 of his work.

"That a disease originally and primarily infectious, may, by concentrated effluvia, or by some peculiar causes superadded, become contagious, I am ready to admit, and it is

^{*} No. 4, in the Charleston Times.

upon this principle alone that I have been at length induced to class the plague along with contagious diseases. For i is an old and well supported opinion, that it is produced by the same laws of generation as have been defined in the articles of infection." How evidently the above reasoning is applicable to the yellow fever, any one may decide.

Another serious charge against the Reviewer, is to have misrepresented that the author has admitted two sorts of contagion; that of the rattle-snake, the viper, and the spider, as secretions from healthy vessels, and the second from a morbid condition of the same, &c.; in answer to which it is said that these poisons were mentioned only to prove that they ought not to have been classed among contagions. This is farther proved by a paragraph transcribed in the replication, &c. And this is all true; yet it does not follow that the inference was not correctly drawn, not from the paragraph here adduced, but from the very principle on which the Essay on contagion is established: viz. "contagions are said to be of two kinds," &c. Again, the author, speaking of yellow suffusion in yellow fever (p. 116.) and observing that the same takes place from the bite of the rattle-snake and other reptiles, seriously proposes a query, whether the similarity of effects from different poisons on the stomach should not suggest the same manner and means of cure?

To conclude—on the whole, the Reviewer cheerfully acknowledges, that having fully compared the excellent materials contained in the Essays of Dr. S., he certainly did not suppose that the author had changed or abandoned his well-known and professed opinions. The severity of his remarks originated from the views he has given of concentrated effluvia, and transmissible contagion, which may be used by others to prove or defend the false theory of the contagion of the yellow fever. The few opponents we have to contend with, are indeed very skilful; I might almost say,

very artful, and if these late Essays of Justitia prevent any misuse of the former, the Reviewer will feel perfectly satisfied; for, with the contagionists no quarter, nor explanatory conciliation is to be courted, or there will be no end to the controversy.

COLLECTANEA CLINICA.

A Case of Diabetes, successfully treated by blood-letting. By Dr. James Cook: communicated for the Medical Repository by Dr. Enos Barnes.

"I. D. 34 years of age, accustomed to the free use of spirituous liquors, not however to such a degree as to produce intoxication—at times troubled a little, with spitting of blood-rather of slender form-weak phlegmatic habitby occupation a farmer—had been troubled with diabetes more or less for three years. I was called to visit him in the month of June.—The Diabetic symptoms had increased alarmingly since some time in the spring preceding, at which time they were—impaired appetite—insatiable thirst—dry parched mouth and soreness in the region of the kidneys, and along the course of the ureters.-lowness of spiritsemaciation and debility-skindry and harsh-pulse weak and quivering, beating 65 times in a minute-calls to void urine frequent and urgent-voided, in 24 hours, 16 pints-(which I ascertained by ordering all to be saved for that length of time, perfectly sweet to the taste, and of a fragrant odour. I ordered him to live wholly on animal food; gave a gentle cathartic-after which, for 10 or 12 days, he took bark, sulph. acid and tonics.-He, however, grew weak every day: on some days he did not void as much as on others: but on the

whole he was worse, evidently worse than when I began to treat him.—I was discouraged, and about this time put him in charge of another physician, who did not think proper to vary essentially the mode of treatment I had adopted, but pursued it 10 or 12 days longer; I then called on him, found him still worse than when I left him. His physician had gone on a journey, and would not return very soon. Wishing to do something for the poor fellow, I proposed bleeding him, observing to him, at the same time, I had no experience of its good effects in such cases: but that, indeed, it was contrary to the established modes of practice. Yet inasmuch as he had considerable pains about the kidneys, back,&c. it might at least be a temporary relief.

The patient readily consented; observing, that the remedy could but kill him, and he was certain he should die very shortly if he got no relief. Before I proceeded to make trial of bloodletting, I wished to ascertain the quantity and quality of the urine: therefore left him, desiring to have it saved.

I called next day, and found he had passed thirteen pints. His strength declined so rapidly, that I was about to decline making trial—at length, however, I bled him 12 ounces, and left him. On calling next day he appeared rather better; urine only about nine pints in 24 hours. The crassmentum of the blood was black, and void of tenacity: gave him a laxative, and left him.

3d day called, found him gaining; appetite returning; let him eat and drink what he pleased, except spirituous liquors, the pain across the kidneys somewhat abated; urine eight pints; took 12 ounces of blood, which reduced the pulse from 60 to 50; the crassmentum so void of tenacity that it could not be elevated above the surface of the serum.

4th day; found him still better, urine as yesterday, and still sweet to the taste; took 18 ounces of blood, which had the same appearance as that drawn yesterday.

5th day; urine seven pints, still sweet, thirst less, gums more firm; took 12 ounces of blood, which appeared as yesterday, except a little buff on the surface; skin dry, harsh and scaly gave; some salts to open the bowels.

6th day; there appearing some increased action in the pulse, bled 18 ounces, as sizy as that generally drawn in Pleurisy; pulse before bleeding 70, after it 55; sweats at the temples and forehead for the first time.

7th day; thirst gone, his spirits light, and mind cheerful, urine five pints, somewhat of a urinous smell, taste salt, was bled eight ounces.

8th day; urine a little more than four pints; smell, taste, and appearance nearly natural; rose from his bed in the afternoon, and unexpectedly found himself able to walk! was astonished to find how much strength he had gained: I then prescribed gentle tonics; and at the end of another week, he was able to pursue his labours, and in a few weeks had his strength and flesh as usual; and is now as healthy, to all appearance, as any man in the country."

A Case of Poisoning from eating Partridge, (Tetrao Umbellus,) by C. Drake, M.D.

In the month February last I was called to visit H. B. aged about 35 years, and of good habit of body, who was suddenly seized with vertigo, dimness of vision, deadly sickness of the stomach, with extreme languor and exhaustion. It was with difficulty he reached the window, when he ejected from his stomach a considerable quantity of half digested food, which he had taken an hour or an hour and a half before, and immediately sunk exhausted. I found him somewhat recovered from his lipothymy, with the pupils greatly dilated, the skin cool and moist, without

pulse in either arm or temple, complaining of excruciating pain and heat, in the region of the scrobiculus cordis, with disposition to vomit, and violent headach. I found he had eaten largely at dinner of partridge, and that his servant, who, had eaten a part of the same, complained of nausea and feebleness. Before I could prepare an emetic draught, the respiration became interrupted and convulsive, with so much anguish and uneasiness in the course of the spine, as caused him to raise himself several times from the bed, and throw himself back with convulsive violence. Two scruples of Ipecacuanha soon produced copious vomiting, with alleviation of the symptoms. As the fluid ejected still appeared to contain digestible matter, I agreed with Dr. Pascalis, who was also called in, to continue the vomiting, with Tartarized antimony, which was done until he threw from his stomach merely the warm water he took, to aid its operation. At 7 o'clock, P. M. (two hours after the attack) the pulse became perceptible, but was extremely weak and slow, and the pain of the head and stomach was much diminished. At this time he voided at short intervals a considerable quantity of urine, and complained of lancinating pains through his abdomen, which were soon followed by distressing tenesmus and griping. A purgative given by the mouth was soon after rejected, and an active cathartic enema was substituted, which produced a free evacuation, and some relief. The patient took during the night, light nourishment with wine. next day I found him extremely languid, pulse slow, small, and weak, complaining of dysenteric symptoms, and inappetence to take food. It was several days before the system recovered its wonted tone and vigour.

The servant who had eaten but moderately of the par-

tridge, was relieved by taking a cathartic.

The alarming symptoms in the above cases may be reasonably ascribed to eating of the partridge, which was rendered venenous by having fed on some poisonous berries, or seeds, probably those of the various species of Kalmia which they are known to do, when deprived of their ordinary food, by the earth remaining long covered with snow, as was the case at that time.

I am aware that poisonings from this cause have frequently occurred, and are well known to practitioners; but I have been induced to record this case as exhibiting the marked effects of an over-dose of the prussic acid, (the deleterious principle in the different species of Laurel) which has been lately much employed as a remedy.

Case of Anthrax, by C. Drake, M.D.

N.B a female pauper in the Belleville Alms-house aged about 30 years, of frail habit, was affected in the summer of 1817 with anthrax, situated on the back, near the vertebral column, and a little below the scapula. When I first saw the disease it had existed several days, was very painful, the centre of a dark red, having three or four small openings, from which issued a saneous fluid, and the whole tumour measuring about three inches across. I immediately divided it through its whole extent by a crucial incision, pressed from the numerous pores of its divided sides an ill conditioned pus, and applied an emollient cataplasm, which was renewed thrice a day. In a few days the anthrax assumed the appearance of a healthy ulcer, and was soon healed by simple dressings.

Three or four cases of the same disease have since occurred in the establishment, which have been successfully treated in the same way. The uniform success that attended this method of treatment, in numerous cases brought to the Hotel Dieu of Paris, and that too, without much aid from tonics and other general remedies, (which is the most surprising, as the disease usually occurs most frequently in habits worn out by intemperance and high feeding,) demonstrated its superiority over the ordinary method of treatment by local stimulants and a reliance on general remedies to overcome the tendency to gangrene. I think the practitioner, by adopting it, will soon become convinced of its efficacy, and that we have, in this instance at least, deviated, without good reason, from the practice of the ancients.

Case of Intermittent Fever, treated with Coffee. By I. Baxter, M. D.

B.—P.—in August, 1820, returned from a school in the neighbourhood of marshy lands, in the country, with a strong intermittent fever of the tertian type, which I succeeded in overcoming in a few weeks with bark. He had a renewed attack six weeks after, which was likewise cured, but by opium. He remained well until the 21st April last, when a paroxysm recurred of a very violent character, producing great intellectual derangement during the febrile stage, which was very severe: I prescribed an emetic and a calomel purge, with the intention of employing the cinchona. The patient was unruly, obstinate, neglected taking part of the medicine ordered, and refused all others; when noticing in the Edinburgh Med. and Surg. Journal, No. 63, p. 29, three cases of intermittent fever cured with coffee by Dr. Thompson, and having long entertained an opinion that this vegetable might be usefully employed as an article of the Materia Medica, I was only waiting for a favourable case for its employment: I determined, therefore, to use it in this; and made a strong decoction with 3j of the dried unburnt coffee, reduced to powder in 3 xij of water, which was boiled to 3 iv, which I commenced exhibiting in doses of 3 ss every Vol. 6.

hour at the time the paroxysm usually came on, and increased it to 3j during the remainder of the day. The chill was trifling, no fever followed, and the patient (a boy 10 years old) continued playing about until night, when the medicine was discontinued. It had the effect of increasing the pulse to 126 strokes, rendering it soft, and produced a gentle perspiration, after a few doses. He took 3iiiss of the decoction, and has had no attack since.

Case of Emphysema, arising without any known cause, and spontaneously disappearing. Communicated by John S. Westervelt, M.D.

On Wednesday morning, May 24th, 1820, I was called to John Kelly, a boy between five and six years of age, of a delicate habit, and but recently recovered from an attack of simple fever, which had considerably debilitated him. My patient was slightly feverish, with some degree of swelling about the throat, and on the side of the neck, which I did not particularly examine, supposing it to arise from an enlargement of the superficial glands, from cold. He complained of no pain whatever; I prescribed a cathartic, ordered some liniment applied to the throat, and did not make another visit until the evening of the next day, when I discovered the swelling very considerably increased, filling up all the space between the chin and breast, extending up, to the cheeks and other parts of the face, and down, over the pectoral muscles. tumefaction upon examination was discovered to be an effusion of air in the cellular substance, for which, after the strictest inquiry, none of the usual causes of this affection could be assigned, as the child had not received any injury, neither were any symptoms present, which could indicate a morbid connexion between the lungs and cellular substance.

May 26th, the swelling had extended over every part of the body, and continued to increase during the two following days: 29th, the skin was greatly distended, the scrotum enormously enlarged and slightly diaphanous; the whole body was at least one-third larger than natural. There was no perceptible augmentation of the disease, during this and the few following days. The remedy used in this case was an emollient fomentation to the surface generally; the state of the bowels and kidneys being also attended to. The patient's skin was of a natural temperature, and was kept soft and moist by the fomentations; his appetite was somewhat impaired, and the urine diminished in quantity. The distention was not at any time deemed sufficiently great, to make it prudent to puncture the skin, and let out the air: 31st, remedies continued; the swelling was not perceptibly diminished; appetite was improved, and as much urine discharged for the last twenty-four hours as natural.

June 1st, the swelling began to diminish, and the distention was taken off. The disease now spontaneously disappeared in about the same length of time it had required to arrive at its greatest extent. It left considerable debility, in addition to that the patient previously laboured under; but he recovered his strength rapidly, and in a short time became a robust, healthy lad.

A Remarkable Case of Spontaneous Hydrophobic Rabies: Reported by L. F. Gasté, D. M. P. of Neuf-Brisach.

(JOURNAL UNIVERSEL, APRIL, 1821.)

Translated for the Medical Repository.

A legionary soldier, aged 30 years, of a dark complexion, spare habit, and middle size, was so fond of ardent spirits, that to obtain them, he would undergo the greatest fatigue. His health and reason were much impaired thereby, and for some days he appeared morose and silent. On the

3d of February, 1821, while cleaning his military accountrements, he was suddenly seized with a progressive violent pain in the left hypochondrium, and an unusual constriction of the throat.

He was next day sent to the Hospital, where I found him much oppressed in breathing, with a fixed pain in the left side of the thorax, and complaining that the constriction of the throat stopped his respiration. His look was wild; pulse full and hard; skin moist, and little warmer than natural. His bowels having been constipated for some days, I ordered an emollient injection, and as a drink I gave a solution of gum arabic. In a few hours his throat became again constricted, and its anterior muscles strongly contracted. The patient uttered frightful screams, and at the sight of drink, or the vessels containing it, became violently agitated, and fell into convulsions, which were renewed by the least noise of persons walking in the room. His face and neck were bathed in a profuse cold sweat; his pulse was hard, rather chorded and intermitting; his tongue tremulous and milk-white. With the consent of Mr. Valeu, Surgeon of the legion, a pediluvium of a strong infusion of mustard was prescribed, by which a complete subsidence of the symptoms was obtained, giving us an opportunity to examine the fauces, which we found inflamed, and to attempt to make the patient take a spoonful of an antispasmodic mixture: but he desired us not to speak of drink; and afterwards, when we offered him the cup, the convulsions were immediately renewed. The whole body of the patient was bathed in a clammy sweat. We drew ten ounces of blood, which was dark, and flowed slowly from a large orifice; and we ordered a blister to the nape of the neck, a warm emollient cataplasm sprinkled with camphor to the throat, and sinapisms to the legs. During the night, a considerable vomiting occurred after violent retchings, and there was a suppression of urine.

Next morning the patient had a frothy spitting, which gra-

dually increased, and he occasionally fell into fits of raving, during which he at one time demanded to be raised from the bed; at another, seized a glass of beer presented to him at his own request, dashed it over himself, and fell into convulsions, that were renewed by the sight of the drinks given

to other patients.

He would now attempt to injure some of his comrades, and then converse rationally with others about his approaching dissolution, arranging little legacies, and making preparations for the event. He died at two o'clock in the afternoon, without agonies or violent convulsions. I arrived shortly after, and observed several of the muscles of the breast still contracting strongly, especially the fleshy bundles over the clavicles, which were affected long after the rest with rapid convulsive movements protracted for nearly ten minutes. Notwithstanding the appearances of death, I applied live coals to the soles of the feet, hartshorn to his nostrils, &c., but all in vain.

Twenty six hours after death we proceeded to examine the body, which presented nothing remarkable externally. We found the mucous membrane of the pharynx of a deep red colour, forming a singular contrast with the natural hue of the œsophagus. The root of the tongue was unusually thick; the pupils of the eyes were dilated; the veins of the neck distended with a dark and liquid blood; the larynx, the trachea especially, was inflamed externally, and stuffed with a snow-white frothy phlegm, resembling well-beaten albumen of eggs; the lungs were sound, and crepitant, though congested with blood. On the exterior surface of the heart there were many of those white spots spoken of by Corvisart, in his essay on the diseases of that organ. Internally the stomach resembled wet parchment, and contained a grayish moist substance, like coarsely ground mustard seed. The intestines were distended with flatus, and inflamed in several places.

The appearances in this case were so striking, that my

judgment was formed, I may almost say, before I had time to analyze the symptoms of the disease I have just described, which, in my opinion, should be termed hydrophobic rabies. Mr. Valeu, who had seen three cases of madness from the bite of a dog, affirmed that he met with the same symptoms as were observed in the present instance. most of which showed also a perfect analogy with those spoken of by Dr. Selig, in a Report on a spontaneous hydrophobic rabies in a citizen of Neu-Kirchen. Our patient had resided in Neuf-Brisach nearly five months, during which time no case of canine rabies had occurred. most intimate acquaintances among the soldiers did not remember that he had ever been bitten by a dog: and I believe he had not himself the slightest suspicion of the nature of his disorder. It is more reasonable, then, to conclude, that this disease originated spontaneously, than that the rabific virus remained dormant in the system many years, as some authors pretend it may; for how is it to be conceived that a virus can remain so long inert, which is afterwards capable of destroying life in the space of a few days?

If the patient himself was unconscious of the nature of his disease, it was not forgotten by others; and one physician especially did not think it prudent to assist in opening the body. The repugnance I felt from the remembrance of the precautions he had recommended, prevented me from extending my researches; though, perhaps, interesting experiments might have been made with the frothy fluid found in the trachea. I believe with Trolliet, that this mucus, analogous to that ejected towards the end of the disease, is a peculiar product of the internal membrane of the traches, bronchiæ, and their ramifications, and not a secretion from To the reasons alledged by this authe salivary glands. thor to prove that these glands are not diseased in canine madness, I may add, that the respiratory organs being principally and constantly the seat of the disorder, while the digestive apparatus manifests but slight lesions, we may

conclude that the salivary glands connected with the latter are not affected in hydrophobic rabies.

Our knowledge of the pathology of rabies canina is in its infancy. We meet here and there with individuals who have applied themselves to this subject, but their minds have been preoccupied with the errors of a startled imagination; and it is not without astonishment we learn that Mead, Van Swieten, and Stoll, have declared they never discovered any morbid alteration in persons destroyed by hydrophobic rabies. But further researches will doubtless throw light on this dreadful disease, as they have heretofore on others; and I do not despair that the words of the great Boerhaave will one day be fulfilled: "Nec desperandum tamen, ob exampla jam in aliis venenis constantia, de inveniendo hujus singularis veneni antidoto singulari."

Fistula in Perinao.

A man of 41 years of age passed through several hospitals, to obtain a cure of this loathsome complaint, and was at length admitted into the Hotel-Diêu, where Mons. Dupuytren having probed the different sinuses of the fistula, discovered that they originated from several clusters of hard substances, and by means of a sound, he ascertained that these existed in the substance of the prostrate gland. Making incisions for the purpose, he extracted these substances, of which there were 12 adhering, as it were, by a kind of articulation, and formed, with several polished surfaces; a perfect cure was obtained without delay. Mr. Thenard has found these concretions to contain—

Phosphate of lime— 86
Animal matter— 13
Carbonate of lime— 1 ——100

INTELLIGENCE.

The Editors have been favoured with various scientific materials from their friends in Chili and Peru, and from Vera Cruz, the whole of which they regret not to have time and space to communicate in this Number. Those which relate to the progress of philosophical and medical sciences in the city of Lima, with an interesting document on the nature and origin of the yellow fever, as adopted by the faculty and government of Mexico, will be presented to our readers in the next Number; but the account of the two following vegetable productions, will, we hope, equally interest and satisfy the botanist and the physician.

Eritroxylon Peruvianum.-Lacoca del Peru.

The celebrated Professor, HIPPOLITO UNANUE, of Lima, Proto Medico of the Vice-Royalty, President of the College of St. Fernando, and author of an excellent work on the climate of his native Country, &c., informs us, that this plant is, from its many admirable properties, as much valued by the natives of South America, as the nepenthes was by the ancient Greeks. 'Viribus instaurantibus et lenientibus pollet eximiis; Peruvi acolis nepenthes habetur.' (Mercu. Peruv. Tom. II.)

Νηπενθις τ'αχολόν τε χαχων επίληθον απαντων ΟΔΤΣΣ. Δ. 221.

'Charm'd with that virtuous draught, th' exalted mind All sense of wo delivers to the wind.' Pope Od. L. iv.

This shrub is a Decandria Trigynia. Calyx Simple, Corolla 5 leaved, arched petals, concave and opened, drupe ovate

hexangular, seed ovoid: The trunk is covered with a whitish bark, branches tender and alternate, leaves eliptic, glossy, apparently with triple nerves, the two lateral scarcely visible. The flowers on short peduncles 2 or 4 together; corol. white and yellow: The root ramifies obliquely with tender fibres. The shrub in its perfection never reaches a greater height than 9 feet: It must however be transplanted when young, and cultivated in the damp, warm, and clean grounds of the valleys, in trenches or furrows about a yard distant from each other. Then it may annually afford three crops of leaves, which are an article of great consumption, and being perennial, the supply lasts many years. It is planted in December or January, at the commencement of the season of the rains; and in May is in full blossom, ready for the first crop of leaves. Of this admirable production of Peru, the illustrious Professor relates, that during the reign of their Incas, its use was restricted to their sovereigns, and that the people had even adorned some of their favourite princesses with its name, as commemorative and expressive of their amiable qualities. The priests burned its leaves as incense, in the solemnities of their sacrifices to the Sun, and were believed to have it in their power to draw happy omens, if they chewed the leaves while the victims were surrounded with the smoke from its sacred fire. When life was in extreme danger, recourse was had to the juice of this plant as a last remedy, and it was also estermed a powerful philter, with which the Cupid of their rude mythology poisoned his arrows to wound the heart.

At present Lacoca is to the occidental Indian, an article of as extensive utility, as the Betel is to the Oriental.*

The natives consider it an object of the first necessity.

^{*} For what relates to the composition of Betel, comprising all the properties of the eritroxylon, and requiring also the use of lime or some other alkaline matter, see Med. Rep. Vol. ix. p. 99.

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They carry the dried leaves in little bags, hanging at the neck or belt, and with them they mix a small portion of lozenges, made of lime or ashes obtained from herbs. They alternately chew the leaves and the lime, until they have formed a ball of the whole, which they keep in the hollow of the cheek; when all the juice is extracted, they throw it aside to make another. By the above operation they obtain from it a strong, though pleasant bitter gum, which they swallow with the saliva. It is a strengthening food to the stomach, an odoriferous and stimulating aroma to the mucous membranes and glands of the mouth, and causes a great heat, which is immediately, by the presence of the alkali, moderated. The juices affect the brain, and in weak persons produce a momentary sensation of somnolency or reverie. Such are the rare and numerous benefits which Lacoca affords to the poor Indian, condemned to a life of toil and hardship, half naked, and who rarely wants more than a handful of corn, and another of sweet potato, for his daily sustenance, that with it he can undergo the labours of the field, or the more fatiguing work in the unwholesome depths of the mines, can travel with despatch through barren deserts, or cross the cold regions of the Andes as a trusty courier or messenger. In every situation Lacoca revives his exhausted strength, rouses his spirits, and sustains his courage and his resignation. The Spaniards who are employed at the mines hold it in as much estimation as the Indians. As a production that calls for the attention of the philosopher and physician, we may remark, that its properties as a tonic, analeptic, restorative nutritive and sedative remedy, are well ascertained, and can severally be elicited by obvious processes. In ordinary use a warm infusion of it excites perspiration; it affords a prompt relief in humoral asthma, and violent paroxysms of colic; the Eritroxylon proves friendly to the nervous system: it has a soothing diffusible power, by which it submits the voluntary muscles to the power of the will, and corrects the illusions and vesaniæ of hypochondriasis. Prof. Unanue thinks that the Lacoca of Peru would afford an important relief to sailors and soldiers, exposed to tedious navigations in the polar seas, or long marches in cold or barren regions, a solace to both, and a prophylactic against the morbid effects of stagnated or benumbed circulation.

Chinininha or Unanuea Febrifuga.

To the honour of the renowned Professor we have mentioned, this shrub was inscribed by Don Jose Pabon botanist, of Chili and Peru, who at the same time presented the plant to the Royal Academy of Medicine of Madrid, as a production, to which its febrifuge properties assigned a conspicuous rank in the Materia Medica. A committee of seven eminent physicians were immediately appointed by that institution, to investigate farther the character of the Unanuea. It was authentically established, that a few doses, of 32 grs. each of the pulverized root, were sufficient to cure any kind of intermittent, and that in many instances, the disease of three months standing had been overcome, when cinchona had failed. The use was therefore regularly authorized by the Proto-medico, or archiater of Spain, Sen. Don Hilario Torres, and the specific deposited for the use of the public with the licentiate, Don Antonio Ruiz, with the usual privileges and restrictions from authority for the genuineness of the article.

We regret that it is not in our power to lay before our readers, the accurate botanical details and analytical results of the chinininha, which, though they have been promised us, have not yet been received. But from a very superior engraving of it, which we have in our possession, it appears to belong to the class *Tetrandria* and order

Monogynia; Calyx five cleft, corol. tubular, five petals, two of these deflected; capsules five valved, five seeds affixed on each valve: trunk strait, tubular; leaves serrated, oval, and pointed, flowers originating at the ternated exillæ of the peduncles. The root oblong, apparently tuberculous, shooting a great number of hairiform filaments.

STATE OF MEDICAL SCIENCE IN CONSTANTINOPLE.

(Journal Universel des Sciences Medicales, May, 1321.)

--- ANSIATED FOR THE MEDICAL REPOSITORY.

Medical science has made no progress in the Levant since the days of Esculapius; and would to heaven, for humanity's sake, that the profession of physic were reduced to its primitive state of simplicity! but quacks have taken entire possession of the East, and the practice of medicine presents to our eyes nothing but an object of speculation. Every one is allowed to practise unmolested, without undergoing any examination, or possessing any license; and the most impudent always claims the greatest share of talent and popularity. These remarks apply to the Levant in general. Constantinople, however, offers, from time to time, individuals whose abilities might do honour to our country. (France.) Educated physicians are sometimes taken hence by the ambassadors, and sometimes we meet with those whom the love of travel has brought into the country. But how many are there who come hither with the sole intention of exploring the mines of medicine, and employ all possible means to effect their object! These foreigners inhabit the suburbs of Pera and Galata, which are appropriated to European Christians. When I say every one is admitted to the practice of physic. I do not apply the remark to strangers only; for on the list of our physicians, we have Turks, Greeks, Armenians, Jews; in

short, individuals of every nation, and every religion; and yet in this motley assemblage, there is a sort of organization.

The Mussulmen hold the supremacy in Medicine. The Echim-Bachi, the Archiater, or physician to the Grand Signior, is the supreme ruler not only of the profession of physic, but of surgery and pharmacy also; though this title, unfortunately, does not always endow him with the talents necessary to fill properly a station of the kind.

The healing art can never make any advances unless there are colleges and universities possessing well-informed professors, who by their instructions in theory and practice, are qualified to raise up pupils that in time may fill their seats when they shall have retired. In this country there is nothing of the kind, if we except the College of Medicine and law established in the Mosque of Soliman. The professors do not practise, but their whole course consists in giving an explanation of certain ancient Arabic manuscripts on these subjects; and the students, after some application to their instructions, are admitted to the practice of the two professions. For in this country, among the Mussulmen, physic is closely connected with jurisprudence, inasmuch as the individual is a doctor or a judge, (mollah,) as he thinks proper. The Turkish physician usually keeps a small apothecary's shop, where he remains a part of the day, seated in a large arm-chair. There he receives the visits of the Turkish women, feels their pulse, and generally presents them with a small vial of some coloured liquor, receiving a compensation for it according to the patient's circumstances, which are very well estimated by the crafty practitioner. Most of these Doctors go their rounds among the houses of the Turkish lords, who are their patrons; and some of them visit the seraglio. (By the seraglio is always to be understood the palace of the Grand Signior.) It is not there that fortune smiles most upon the physician; but the acquaintances he there forms, lead to wealth

in the end. The man who to-day fills the lowest station in the palace of the Grand Signior, may become a person of consequence, and then he is usually generous, extorting from all hands, but giving away with proportionate profusion. Besides, by his visits to the seraglio, the physician makes himself known, acquires protectors, and aspires to the office of Echim-Bachi. When he has got possession of this post, he may consider his fortune as made.

I do not believe the fixed emolument of this office is considerable, but to the man who knows how to hit the mark, the perquisites may become immense; and the Mahomedan gentlemen are not ignorant how to make the most of their means.

Among these perquisites, there is one that returns every year at a stated time. The Echim-Bachi sends to all the grandees of the Porte a tray furnished with five vases, generally of fine porcelain, filled with a madjoun (electuary) of a heating nature and excellent flavour. Musk and alce-wood enter for the most part into the composition of this marvellous electuary; and as it possesses the power of recruiting the jaded appetites of these superannuated debauchees, they in return pay five or six times its value. apothecary can open a shop without the written permission of the Echim-Bachi. This is rarely given gratis, and these shops multiply very much. Again, this archiater has the fees allowed him for private visits to individuals, and his high station prevents them from offering him a small sum. All the physicians, whether Greeks, Armenians, Jews, or Franks, pay him an assiduous court; he in return sends them on visits to the great; and recommends them to the service of the Pachas who require physicians to come and live near them. These doctors usually receive, exclusive of their travelling expenses and cost of medicines, 500 piastres*

^{*} Equal to 555 dollars.

a month, with lodging, and a certain number of rations for their support. If ignorant of the language of the country, their interpreter is also paid by the Pacha.

As they furnish the medicines prescribed, they take care to derive from this article alone a very considerable profit: but these lucrative situations are not free from danger. They may be lost by a fit of ill humour in the Pacha; and instances are not wanting of the unfortunate doctor having paid with his head, for displeasing his despotic employer.

AUBAN, D.M.

Pera, Constantinople, March 24th, 1821.

Parturition of a Vesicular Placenta.

At the age of 35, a lady, mother of three children, became pregnant, and passed through several months of gestation with no remarkable indisposition, and no greater inconvenience, than that of repeated attacks of a leucorrheal discharge, like the colustrum. She had all the symptoms of pregnancy, and even thought she perceived motions of quickening. After seven months a true labour came on, preceded by a flooding, and produced a placenta, to which was attached a small bladder without any vestige of a funis. It was opened, and appeared as large as the hand, containing nothing but a viscid and yellowish fluid. After delivery, the patient went through an ordinary succession of pains and discharges, but with more fever than usual, for which she was let blood, and soon happily recovered without farther trouble.

(Cercle Medical No. 1. Vol.1. p. 52.) (Journal Universel, Aug. 1320.)

Strictures of the Rectum.

In treating of this formidable organic disease, of which instructive cases have been inserted in the preceding vo-

lumes of this work, particularly Vol. V. p. 186, Mr. John Howship, member of the Royal College of Surgeons in London asserts, that he has perfectly succeeded in preventing its ultimate progress, by the timely and continued exhibition of the decoction and tincture of Peruvian bark. This remedy was exhibited in various instances in the first period, when the patient could not pass a stool without purgative medicines daily. Mr. H. modified the bark according to circumstances, with Epsom salt, or the infusion of senna.—(Edinburgh Med. and Phy. Journal, Oct. p. 661.)

Monumental Record of the Introduction of Vaccination in the Viceroyalty of Peru.

It is known, that after repeated failures of the introduction of the vaccine in the populous provinces of Spanish America, the Viceroyalty of Peru suffered terrible ravages by the small pox from 1302 to 1805; in consequence of which, the government of Madrid not only embraced the most vigorous measures to promote the exclusive use of the vaccine virus, but better to provide sufficient supplies of it, organized a naval expedition under the direction of physicians, with a sufficient number of children, to perpetuate vaccination from home to the most distant districts of the empire in both Indies. The plan was perfectly successful. The president and regents of the Royal University of Lima then thought proper to testify their gratitude to their sovereign, and to Don Dr. Jos. Salvany, vice-director of the expedition, for his unremitted zeal in the discharge of the task intrusted to his care; and therefore have publicly conferred on him the highest honours of their institution. Hippolito Unanue, the president, terminated the ceremony by a Latin oration, of which the following ext ract is

here inserted as a rare and elegant specimen of Latin composition, which we think might rank among the best exercises of the old schools of Edinburgh and the Port Royal of Paris.

Imperii fines in ultimas orbis terrarum oras, favente victoriâ, ducere, ditiones longinquas subjicere, arces munitas, oppida fortissima solo sternere, magna hæc quidem sunt, sed humana. Populos, autem à morborum strage liberare, vitam pereuntibus largiri, pestes fugare, hominumque dies augere, non humana, sed divina habentur et prædicantur. Quod tamen, quale quantumque donum sit, id omne majestati tuæ, et beneficentissimo numini, Carole Rex, acceptum referimus.

Quam siquidem Peruvii regna latè patent, tam mortiferis variolis subversa, laniata, ruinis, et sepulcris fæda, misera, depopulata jacebant. Cum vero, summo del-beneficio, vaccina mortalibus conceditur, simgulari principis nostri pietate in Americam deffertur. Eximiâ quâdam animi celsitudine ærarii angustias, belli calamitates, Hispaniæ inopiam et egestatem superante, largis sumptibus Americanis suis, etiam tectis silvestribus et nigris montium antris instar ferarum degentibus, ire opitulatum jussit.

Spirat suavis vaccinæ favonius, lethalis pellitur lues, novæque surgunt de tumulis urbes: agri inculti et derelicti, vertente denuo vomere glebas, virescere incipiunt, et repercutere colles dulcissimos lallos, quibus matres teneros infantes oblectant, et gratulantur.

En tua, O Rex! munera pro quibus Academia solemnia instituit, et non Doctores modó et magistri, ceterique homines gratias tibi rependunt maximas, sed tabula etiam, et marmora sensus nusquam habitura.

Ergo, Pater America, Peruvii delicium, gentis nostra variolis peritura servator, lycei Limani prasidium ac tutamentum firmissimum, inclyte Carole! dum nostras oras alluat immensus oceanus, dum Antium alta juga aternis albescant nivibus intonetque ibi fulmen, tempestatesque micent sonora, tamdiu in animis nostris impressa manebit, cum chara nominis Tui recordatione, memoria beneficii sempiterna.

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Dr. Drake's Defence of his Paper on the Yellow Fever of 1819.

The 15th Number of the American Medical Recorder contains some strictures on my Account of the yellow fever of 1819, by Dr. S. Brown, the late Resident Surgeon of the New-York Alms-House, impugning the accuracy of my statement. The fact of Dr. Brown having been my medical assistant at the hospital where this fever was treated, cannot, I conceive, invest him with any right to thrust himself into the judgement-seat on my paper; but as he has done so, I will endeavour to make out, from his confident assumptions, the various points on which he has deemed me in fault, and beg the indulgence of the readers of the Medical Repository whilst I make to him my explanations, and if necessary, my humble apology.

It appears, from Dr. Brown's statement, that I had not visited the sick at Fort Stevens, as often as he had; that I did not see them as frequently as, in his opinion, was necessary in order to describe the disease accurately; that even when I did visit them, I did not examine the cases with sufficient attention; that I did not take notes at the bedside, which he very properly considers of great importance; that I have not described the disease correctly, and accordingly he has (doubtless, from the best motives, and without any thing like temper or heartburning.) undertaken to give the public a correct account of the disease. To all this I answer: It is true, that I did not visit the sick as frequently as it was thought necessary for them to be seen by some medical attendant; that in hospital practice it is the constant habit of the resident or assistant to visit the sick, and prescribe what their cases may require in the intervals of the attendance of the principal physician; that Dr. Brown, as was his duty, saw the

sick daily, prescribed as present symptoms required, and detailed to me on my next visit, (I thought faithfully.) how each patient had been since I had last seen him, the effect of remedies, and what had been administered. That I endeavoured to see the sick once in two days; and in general I accomplished it with tolerable exactness, which was as frequently as could be expected, considering the distance of the hospital, the season of the year, and my other engagements. When there, I believe I performed my duties with my accustomed care, that I examined each case until I was satisfied as to the state of the patient, and what medicine I should order for his relief .- I perfectly agree with Dr. Brown on the importance of taking notes of a disease as it progresses, if we wish to give an accurate account of it. I have long felt the value of this practice, and often availed myself of it, especially during the existence of the fever at Fort Stevens, where it was my constant habit to note in pencil mark at the bedside, a few of the most prominent circumstances, lest they should escape me before I could return to my office, where I immediately and invariably wrote out the progress of each case in minute detail, as well what I had observed, as what he had reported to me (I thought freely and faithfully,) of what had occurred since my last visit.-Now, I appeal to every candid man. whose statement is most likely to have been given with correctness and without prejudice or temper? Dr. Brown's, which succeeded mine, and which really appears to have been written with a determination to see nothing as I had seen it, and had unsuspiciously set down; or mine, which was drawn up at a time when I could not have imagined its publication would excite any angry feelings, and which, moreover, in part rests on information from time to time officially communicated to me by the very person who now undertakes to invalidate it! Dr. Brown may possess the better judgment; he may be more lynx-eyed

than myself, but the public will admit that the data from which my satement was made, were ample and satisfactory.

It is asserted, that the treatment pursued was not such as I have represented. If this were really the case, I ask to whom then would the odium attach for deceit, failure, or neglect? and by what system of casuistry will Dr. Brown undertake to extenuate such conduct, as the neglecting to obey the directions of his superior officer, and at the same time, leading him to believe that they were punctually fulfilled? I certainly thought, and do think still, that the treatment was such as I represented it to have been. could have had no inducement to say that it was different from what it really was, as I had the perfect control of the hospital, and was at liberty to vary my prescriptions without giving just cause of complaint or offence, either to my assistant or my nurses. Notwithstanding his conduct in this affair, and the manifestation of a feeling and temper, which I cannot trace to any worthy or sufficient source, I will not do him the injustice to believe, that he practised a continued and concerted game of deception on me, whilst acting under my direction. No, I believe my directions were punctually attended to, as I never had occasion to complain to the Commissioners, that either he or the other persons attached to the hospital, neglected their duties.

I did not think it necessary to detail with minuteness, all the circumstances that had occurred with regard to the exhibition of calomel in the disease; but as the little I did say, has been asserted to be incorrect, I will now state more particularly, what were the facts on this subject. It was only in one case of much importance, and where the remedy could be properly tested, that it was administered. This was a violent well marked case of the prevailing fever, not as yet exhibiting any of the fatal symptoms: and as my assistant had seen it previously, and directed mercury; and as the patient had been taking the medicine about twenty-four

hours, and it appeared to be a fair case for its trial, I directed it to be continued, which I ever after regretted, as the disease terminated fatally. At the same time, I remarked to my assistant, finding him much disposed to the employment of the remedy, that I did not think it held out the best chance of relief; and that I inclined rather to attend more directly to the state of the primæ viæ by the repeated use of evacuants. I directed that no other case should be put on the use of mercury, until I had seen it; and immediately instituted that general plan of treatment which I wished to be pursued, (as detailed in my account,) and which I have reason to believe, was adhered to in every case with as much exactness as circumstances permitted; the assistant in my absence exercising his judgment, and varying it, to meet particular indications as they arose.

On the subject of the alkaline laxative powder, which Dr. Brown asserts he received from Dr. Gilbert Smith. of this city, and which therefore must have been suggested or prescribed by him, I will merely observe; that I do not know to whom the credit of that composition belongs; but I certainly did not learn it from Dr. Brown, as I have never yet felt the necessity of submitting myself to his tui-The powder in question I know to be an excellent laxative in numerous cases of intestinal derangement; I had been much in the habit of employing, it for at least two years before the prevalence of 1819; and if it originally belonged to Dr. S., I think it very probable I received it from the recipe book at the Alms House, where it might have been inserted, when that gentleman was physician to that establishment. How Dr. Brown can pretend to intimate that he directed the treatment, is to me inconceivable. Dr. Dyckman, my colleague in the Alms House, who sometimes accompanied me in my visits, knows that I was not in the habit of consulting with, or asking advice of my assistant; and

if he exerted any influence in prescription, it was only in my absence.—Dr. Brown's critical remarks on my practice may be as sage as his perceptions are infallible; but I do not feel myself disposed to take any notice of the one, or attempt to prove the fallacy of the other. Such labour

would neither interest nor edify the public.

Every person on reading the strictures, will naturally inquire why its author should come forth on this occasion? Is it a mere volunteer matter for the benefit of the profession, or has he been impelled to it by feelings of anger, caused by Dr. Drake's not having required his assistance or advice in drawing up his paper? To give him some pretext for their publication, and in order to enable him to furnish the public with a correct account of the fever of 1819, the reader is led to believe that he was my colleague at Fort Stevens. There is no clear and positive assertion that this was the case: but I ask every plain dealing man, what is to be inferred from these expressions .- "I was duly informed that Dr. Drake and myself were appointed to take charge of this establishment,"-" when present, he (Dr. Drake) never advised any material alteration in the plan of treatment."-One of our first cases,"-" Dr. Drake visited the hospital with me on Monday." Now, what apology can Dr. Brown render, when the public are informed of the following facts. When the hospital at Fort Stevens was instituted, I happened to be out of the city. On returning, which was the next day or the day after, I waited on one of the Commissioners, who informed me, that Dr. Brown had been attending the sick at Fort Stevens, in his capacity of a resident of the Alms House, and requested that I should now go and take charge of that establishment as the principal physician, which I accordingly did, prescribing for the sick, and leaving such general directions and discretionary powers with the assistant, as circumstances required. It was Dr. Brown's duty, which I believed he

faithfully discharged to prepare the medicines I directed, to see they were properly administered, and to attend to the sick in my absence.

The breach of decorum in giving publicity to these objectionable strictures, attaches more to the New-York Editor of the Medical Recorder, than to their author. gentleman called on me some months since, and informed me, that Dr. Brown wished to publish in his Journal some remarks invalidating my account of the fever of 1819. To remove every difficulty, and exonerate Dr. Ducachet from the charge of relying on my mere assertion, I exhibited to him, official evidence that Dr. Brown was on that occasion my assistant and not my colleague, on which he expressed himself satisfied. But it seems this was not sufficient. It was question of a little wrangling and controversy, and some men are so constituted that they cannot forego such an opportunity;—they are so fond of dabbling in hot water, that they do not give themselves the trouble of considering whether it be turbid or not; and if they can only make themselves the subject of remark, their end is answered.

CHARLES DRAKE.

New-York, July, 1821.

Note to the Readers of the Medical Recorder.

In the last number of the Medical Recorder, (No. xv.) and on its first page, will be found a note to the reader, signed Henry W. Ducachet, which we were tempted to copy and preserve, as a curiosity; but our respect for the author, small as it is, and however much he may have laboured latterly to diminish it, is still sufficient to prevent us from gratifying the curious, at his so great expense. It purports to be an answer to a card written by Dr. Pascalis to the

Editors of the Medical Recorder, which appeared in the last Number of the Medical Repository, though it requires a hawk's eye to detect any connexion between them, if we except a reference of three lines, in which the writer affects to be witty, in acknowledging his ignorance. It is confessedly a gratuitous display of unchastened egotism, bearing upon its face the evidence that it is disavowed by his associates, on the account of its obvious inconsistencies and its consummate impudence; and it will appear to the unprejudiced reader, to be a specimen of literary Hotspurism, untempered even by a single grain of discretion. What the writer's object is, we are at a loss to determine; if it was to advertise the public that he is ignorant of the doctrines maintained by the Editors of the Medical Repository he might have saved himself that trouble, for he was never suspected of being intimately acquainted with them. If it was written merely with the view of showing off his knowledge of English, at the expense of good manners, which by the way seems to be its most obvious intention, he must have very much mistaken the estimate which the public have formed of him, to think that this additional specimen was required: if the amor sui which he possesses in an eminent degree, having persuaded him that he is qualified to read lectures of experience to the whole medical community, (and those too on a subject where the acknowledgement of his ignorance would be universally received as evidence of his wisdom,) has prompted this card, which in its terms outrages all decorum, and outstrips in offensiveness the language of the Review itself, to which it is related, we can only regret its excess, and recommend him to the wholesome discipline of that school, which Dr. Franklin says is peculiarly calculated for such pupils.

The object of such a card, coming from one who is associated in conducting the Medical Recorder, must be extremely obscure, if not unintelligible, to the

reader who sees in the same Number some strictures, which if collated with it, must render one of its Editors superlatively ridiculous. Who that editor is, the writer can best judge.

It is difficult to descant long upon nothing, and scarcely less so, to remark upon a paper whose merits are a minus quantity. We therefore shall not expose our impotence by dwelling upon this amorphous production, where flippancy has been mistaken by its author for wit, impudence for candour, and the display of an overweening vanity for the expression of a just indignation. But it may not be amiss before we close, to advertise the public, that the writer of the neat and delicate article, of which we are speaking, has already made proclamation, that he has drawn the sword, cast away the scabbard, and is armed a capite ad calcem, for an exterminating warfare with all noncontagionists. Although the information is calculated to produce much trepidation in their ranks, we trust they will not be dismayed, till they have tried the temper of his weapon! As for ourselves, being as yet "unscar'd," we are presumptuous enough to tempt the dubious strife, asking nothing from this dauntless champion of an almost exploded creed, but the observance of that decorum, which the serious nature of the controversy demands.

Obituary.

Died, at his seat at Hyde Park, on the 25th of May last, Samuel Bard, M.D. President of the College of Physicians and Surgeons of this City. The College have appointed Professor Mitchill to deliver an eulogium on the deceased, on the opening of the College at its ensuing Session.

Washington, March 29th, 1821.

To the Editors of the New-York Medical Repository.

GENTLEMEN,

I have taken the liberty of enclosing to you for publication, an abstract of Meteorological observations at the Military posts in the United States, during the third quarter of the last year. When comparing it with those made during the two first quarters, several important inferences are suggested; and we are encouraged in the belief of being able to trace, with some degree of accuracy, both the causes and effects of the general and regular changes of winds, temperature, and weather, during the course of the year, and for a succession of years. detailed and continued observations may enable us to ascertain how far these are modified by peculiarities of position, and other local circumstances; and what effect each, or the combination of both, may have upon our diseases. Thus, there are some diseases which prevail at certain points, whenever the mean temperature of the season is above or below a certain degree. These, it would appear, depend upon a combination of general and local causes; for these points are scattered over a great extent of country, and their number bears a pretty direct proportion to the magnitude of the general atmospheric changes; while the intermediate healthy spots, often in the vicinity of the former, prove the necessity of local agents to produce the effect. Many extensive epidemics are neither arrested, nor materially affected by localities; while a great proportion of our diseases proceed from causes obviously confined to the places in which they originate. Practical results may be expected from a series of observations, which should enable us in any degree to approximate to the ratio, which

these causes bear to each other: the one may be altogether beyond our control, but the other admits of material modification.

The following remarks may facilitate a comparative view of the reports for the several quarters of the year. The mean temperature for July was 77.17; for August, 78.85; for September, 71.05; and for the quarter 75.03. In July the course of the winds was in the following proportion S.W. 8-S. $5\frac{1}{2}$ -S.E. $5\frac{1}{2}$ -W.3·-N.E. 2^{1} -N.W. $2\frac{1}{2}$ -E.2being 19 from the southern, and 7 from the northern quarter. In August, S.W.9-S.4-S.E.4-W.4.N.W.32-N.E.21- E_2^1 .-N.1\frac{1}{2}; being 17 from the southern, and 7_2^1 from the northern quarter. In September, S.W.71-N.E.5-N.W.41 $S.3\frac{1}{2}-S.E.2\frac{1}{2}-W.2\frac{1}{2}-N.2\frac{1}{4}-E.2\frac{1}{4}$; being $13\frac{1}{2}$ from the southern, and 12 from the northern quarter. Out of 27 places of observation, the prevailing weather was fair in July, at 20, varying at 6, and equally divided at 1. In August, fair at 25, and varying at 2. In September, fair at 25, varying at 1, and cloudy at 1. The proportion in July, was 181 fair, 41 cloudy, and 81 rains; in August, 19 fair, 5 cloudy and 7 rain; in September, almost 20 fair, 5 cloudy, and 5 rain, during the quarter 574 fair, 142 cloudy, and 204 rain. The greatest proportion of fair weather was in September, the least in January. Comparing the western with the eastern posts, in about the same latitude, the difference of temperature is less than in the former quarter. The mean temperature at St Peter's in July at 2 P.M. was 2º above that at Sackett's Harbour. In August, 31; in September they were At Prairie du Chein the mean temperature, at the same time, was, in July, 7.56 above that in Boston Harbour; in August, 12.48; in September, nearly equal. At Council Bluffs, the mean temperature was, in July, 5.80 above that at Fort Trumbull, in Connecticut : in August, 9.77; in September, 6.70. At Council Bluffs also, the mean temperature in July was one degree above that at New-Orleans: in August, 0°.84'; in September, 5°.69' below. During the first quarter, the prevailing wind was from the north-west; during the second, from the south-east; and during the third, from the south-west.

Respectfully
Your Ob't. Serv't.
Jos. Lovell,
Surg. Gen. U.S.A.

Note. The following posts were not included in the former reports, and therefore their latitude and longitude are now given, viz. Niagara, lat. 43° 14′, long. 79° 6′, Detroit, lat. 42° 30′, long. 82° 58′. Newport, R. I. lat. 41° 25′, long. 71°19. FortSevern, lat. 39°, long. 76° 43′. Norfolk, lat. 37°21′, long. 76° 42′. Bay of St. Louis, lat. 30° 17′, long. 89° 17′.

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Camp Ripley.	Fort Gadsden, E. F.	New-Orleans,	Bay of St. Louis,	Fernandina,	Baton Rouge,	Montpalier, Al.	Fort Scott, Geo.	Fort Johnston, N. C.	Norfolk,	Fort Washington, Md.	Fort Severn,	Fort M'Henry,	Fort Mifflin,	Pittsburgh Arsenal, Pa.	Newport,	Fort Trumbull,	Fort Armstrong,	Council Bluffs,	Prarie du Chien,	Boston,	Marblehead,	Detroit,	Portsmouth, N. H.	Fort Niagara,	Sackett's Harbour,	St. Peters,		Places.	
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AUGUST, 1820.

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Detroit,	81	94	98	69	78	74	72	458		072		Ths.	10.	10. Mon. 28	28.
Marblehead,	20	35	64	35	75	61	29	00		164	74	Sat.	5.	Mon. 21	21.
Boston,	58	73	09	53	63	56	69	546		8 59	54	Tues	22	Tues	15.
Prairie du Chien,	84	94	87	54	12	99	65	067	*	019		Ths.	10.	Sun.	27.
Council Bluffs,	79	105	80	59	75	63	89	968		029	22	Sun.	_	Sat.	26.
Fort Armstrong,	72	66	85	09	28	63	20	08 34		5173		Wed.	2	Sat. 26.	26.
Fort Trumbull,	80	98	85	99	89	99	71	327		973	12	Sat.	12.	Tues.	.15.
Newport,	80	88	25	74	94	63	12	487		890	80	Sun.	13.	Mon.	14.
Pittsburgh Arsenal, Pa.	62 .	89	8	09	74	67	29	4117		471	58	Sat.	15.	Sun.	6.
Fort Mifflin,	80	96	82	99	78	64	74	0084		17 74	20	Sun.		Mon.	. 28.
Fort M'Henry,	92	87	80	72	92	74	75	198		376	35	Sat.	12.	Mon.	. 28.
Fort Severn,	80	92	88	99	92	94	74	357		11/77	58	Sat.	12.	Sun.	26.
Fort Washington, Md.	-	87	86	73	73	71	94	03/7		6 77	54	Sat.	12.	Mon.	. 28.
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Fort Johnston, N. C.	85	90	98	74	78	72	78	258		3280	60	Wed	.16.	Mon.	. 58.
Fort Scott, Geo.	77	92	82	69	179	77	77	00		077	38	Fri.	25.	Tues.	. 8
Montpelier, Al.	78	91	85	7	85	74	94	9385		5880	03	Mon	.77	Wed.	. 2.
Baton Rouge,	82	92	92	7.4	98	74	94	878		3184	2	Fri.	25.	Mon.	. 28.
Fernandina,	92	88	82	20	77	80	75	358		3378	03	Mon.21	.21	Tues.	. 8
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Boston,			4	9	-	61	16	63	SW.	27	4			Fair
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Pittsburgh Arsenal, Pa	2	63	~	9		9	19	က	NE.	21		10		Fair
Fort Mifflin, Pa.		က	6	61	20	61	6	-	NEGW	20	4	7		Fair
Fort M'Henry,		4	တ		13	1	4		SE.	26	64	8		Fair
nu			4	•	9	16		CI	s.	19	63	10		Fair
Fort Washington, Md.	8	8	-	61	60	61	9	4	NASHW	11	9	=		Fair
Norfolk,	4	20	9	6	2	67	1	6	SW.	22	4	20		Fair
Fort Johnston, N. C.			63	-	_	24	61	-	Š	18	6	*		Fair
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Bay of St. Louis,		တ			17	က	8		SE.	=	2	15	1	Rain
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Fort Gadsden, E. F.	-	4	4	-	2	5	6	61	SW.	4	13	14		Rain
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St. Peters.	69	93	78	60	71	54	64	1979	83	62		Sat. 1.	Sat. 29.
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Fort Niagara.	70	80	77	64	70	65	68	25 75		70	-	Ion. 24.	_
Portsmouth. N. H.		89			63			89			_		
Detroit. M. T.	82	92	84	66	70	65	74	4185		77	80	Sat. 8.	Sat. 15.
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Council Bluffs,	78	97	80	67	70	58	71	1284		70 70	51.0		_
Fort Armstrong,	78	96	84	58	78	67	7.1	16 86		75			Ths. 13.
Fort Trumbull, N. L.	80	88	79	68	72	70	74	29 78		9074		•	Mon.
Newport R. I.	80	90	70	70	75	63	75	03 79		38/70	878	Sat. 1.	Sun. 23.
Pittsburg Arsenal, Pa.	78	92	82	64	69	68	72	2982		7074	-	Wed.12.	Mon.17.
Fort Mifflin,	80	98	90	70	78	72	77	1289		51 76		Sat. 1.	Fri. 21.
Fort M'Henry, Bal.	83	91	85	73	76	74	78	5883		64 80	00	Ths. 6.	Mon.24.
Fort Severn, Anapolis,	78	89	84	70	76	76	75	96 82		64 80	-	Ths. 13.	_
Fort Washington, Md.		88	86	73	77	78	79	0982		3881	00	Sun. 2.	Sun
Norfolk,		89	81	73	70	76	76	8084		03 78	00	Wed. 19. Sun.	
Fort Johnston, N. C.	18	89	78	75	83	82	79	41 84		45 80	22	Tues 11.	
Fort Scott, Geo.	75	93	79	88	85	76	74	58 86		177	16	Ths. 20.	
Montpelier, Alabama,	78	91	80	60	83	73	73	9384		29 75	74	Sun. 23.	
Baton Rouge,	78	90	89	70	74	72	75	8381		779	00	Sat. 22.	Sat.
Fernendina Amelia Is.		87	84	74	83	71	75	8084		180	32	Fri. 21.	Fri.
Bay of St. Lovis,	78	88	70	70	76	78	75	9081	F 67	777	48	48 Sun. 2.	Sat. 15.
New-Orleans,	86	90	85	77	08	03	8	03 83	3 64	481	65	Sun. 23.	Ths.
Fort Gadsden, E. F.	80	92	82	70	76	75	76	26 84		077	45	45 Sat. 22.	
Camp Ripley.	80	93	87	72	80	80		0018	5 58	8 80	09	9 Mon. 24 Sun. 9	Sun. 9.
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